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ABSTRACT

This report explores the pros and cons of the PPBS management tool. It gives specific examples from school systems and describes steps in each element of PPBS, stressing (1) planning to involve everyone in formulation of instructional and noninstructional goals, (2) programing to give every school program an accomplishment that can be measured within a given time and under specific conditions, and (3) budgeting to allocate money not by line elements but by programs. The report also cites the experiences of school districts currently engaged in some form of PPBS and gives detailed recommendations for staff development and retraining in PPBS procedures. (Author/RA)

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SPECIAL REPORT

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PPBS and the School

New System Promotes Efficiency, Accountability

A Publication of the National School Public Relations Association

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PPBS and the School

OVERVIEW

The mood of the nation in the 1970s is troubled. People are cautious, even suspicious of what the future holds for them and their children. Crises of all sorts--social, political, religious, racial and cultural--have beset the American people during the past two decades. And now still another crisis confronts them: a financial and economic crisis.

The spiraling prices of inflation have reached the point where people are challenging further increases in costs for both products and services. They maintain that costs are rising while quality is declining. The President's freeze on wages and prices and later measures to curtail inflation by the wage and price boards were welcomed by many Americans who felt the economic crisis had reached intolerable heights.

A financial crisis affects everybody, but it hurts some people more than others. And those hit hardest in the 1970s were the poor and the middle class --the bulk of Americans who constitute the nation's consumers. When fiscal pressures arise, they curtail their spending. As a result, food suppliers and processors, clothing and household manufacturers, and service vendors all feel the pinch as belts are tightened and budgets are cut.

Schools, too, have been caught in the nationwide cutbacks. Public education, by the design of federal and state constitutions, has always been in the hands of local community support. The people have always decided what their schools would teach and how much they would pay for it. And today the people are asking questions about schools. Are the schools giving us our dollar's worth? Are students adequately prepared for the world that lies ahead?

George Gallup learned in his 1971 survey of the public's attitudes toward the public schools that the major problem facing the schools was how to pay for public education. His earlier surveys in 1969 and 1970 showed the major problem to be discipline. Responses to other questions in the 1971 survey also led Gallup to conclude that the public wants some proof that their schools are good.

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Penetrating questions all, and the result is that the nation's public schools are now beginning to feel the pressure for accountability. They have always been accountable, at least in theory, to the local public they serve, but never before have they been called upon so exactingly to answer for their performance at all levels.

In a brochure urging accountability and more effective management by the nation's public schools, the U.S. Chamber of Commerce pointed out that state and local expenditures for education rose from $6.5 billion in 1947 to about $68 billion in 1969, more than a 1,000% increase. During the same period the Gross National Product increased 400%. The chamber asked: "But what about its (the American school system) productivity? Its effectiveness? What has the American public received for its money?"

Accountability Through PPBS

How to account for performance, especially performance in a classroom, is not an easy task. A number of management techniques can be devised and employed, but one finding its way into many school systems today is PPBS, a tongue-twisting acronym for Planning, Programming, Budgeting System.

What PPBS is all about--how it's used, what it can provide, where its strengths and weaknesses lie and, most of all, why use it at all--is the purpose of this Special Report. The intent is not to provide the reader with a simplified cookbook on how to do it, rather the intent is to give the reader an understandable report on PPBS.

What Is PPBS?

PPBS is a method, a tool which management can use to attain its goals. It's a means to an end, but as with so many means there's danger that it can easily become an end in itself if its users lose sight of their purpose. As a management tool for school people, PPBS can help school systems identify their goals along with appropriate programs to achieve them, programs that are within the resources available to pay for them. PPBS also provides for long and short range planning as well as for evaluation systems and implementation of alternatives.

Origin of PPBS

Where did PPBS come from? It got a big boost early in the 1960s when Robert S. McNamara took over the U.S. Dept. of Defense. Asked to assist McNamara was Charles J. Hitch, former Rand Corp. executive who had considerable training in relating costs with products or output. This cost-output concept, coupled with McNamara's demand for long-term planning, became the structure of the Defense Dept.'s management system. Pres. Lyndon B. Johnson mandated adoption of this system which emphasized planning, programming and budgeting by every federal agency. With this kind of support from the President, PPBS rapidly became well known throughout all levels of government. As outlined by Pres. Johnson, PPBS was an attractive program, permitting

government heads to find the most effective and least costly alternatives to achieving their goals. Putting it very simply at a news conference, the President said PPBS "...will help us find new ways to do jobs faster, to do jobs better and to do jobs less expensively."

PPBS in the Schools

Without the benefit of an executive order, school districts have not adopted PPBS as quickly as the federal government or for that matter to adopt any form of program budgeting which can be identified by a variety of acronyms built around words like resources, evaluation, management, program and analysis. Of late, however, nearly half the states in the nation have mandated some kind of program budgeting, and many school systems across the country are now in the process of implementing one system or another.

In 1968 the Research Corp. of the Assn. of School Business Officials received a grant from the U.S. Office of Education (USOE) under Title IV of the Elementary and Secondary Education Act of 1965 to develop a conceptual design for the application of PPBS in local school districts. The project concluded in 1971 with the development of the Educational Resources Management System (ERMS)--described as a system to support educational decision making.

The authors of ERMS explain that the use of the initials ERMS replaces the traditional PPBS largely because they felt references to PPBS were linked too closely to business and industry which focus primarily upon inanimate products. A new title was needed, they believed, to more nearly fit the concerns for humans which are characteristic of education. PPBES (Program Planning Budgeting Evaluation System) and DEPS (Data-Based Educational Planning Systems) are other acronyms commonly used to describe different types of accountability systems.

The Dade County, Fla., schools were awarded a USOE contract at about the same time to develop an operational model for PPBS.

System: Not a New Concept

A key word in PPBS is system, a word common to nearly everyone's vocabulary but a word that's taken on new significance in such expressions as systems analysis and systems approach. In this sense, the word system frightens some and confuses others. For them, the expression represents management by technology, an area in which they feel they have little familiarity.

Their fear has little or no foundation. If they would explore the concept, they would find that the word system is not being used in any new sense in these coined expressions of the technological age. Rather, it is being used in its most traditional meaning. School people more than any others have traditionally used the term "system" to describe the setup of schools in towns, cities, townships, counties and even states. It has always been the "school system." One should not fear or be suspicious of a program which is identified as a systems approach. Like a school system, it merely means

that there are several components or parts making up the whole. As several school buildings and their sequential instructional programs serve the educational needs of a community and are identified as a school system, so is PPBS called a systems approach. It's a system because it consists of planning, programming and budgeting, all working together, all interrelated. Each component depends on the others, and they are effective only when they work together.

The great potential of PPBS in today's economically oriented world lies in the fact that it is a system. It is not just another way to budget; rather, it is a system whereby available moneys are allocated by programs that have objectives and priorities. It is a system that requires evaluation and re-ordering of priorities, with the built-in ability to shift to alternative programs to achieve priorities. That's really what PPBS is all about. Like everything else, systems have to begin someplace. No school system, not even those of Chicago or New York City, just happened. Each started with one component, probably one very small schoolhouse, and grew as more students went to school and as more students progressed to higher levels. Then there was a system. So, too, with PPBS. (See Figure 1, p. 5.)

PPBS: A Management Tool for Planning

For the sake of definition, then, a summary of what's been said thus far is that PPBS is a management tool that can be used to plan and manage a district's activities and resources. Harry J. Hartley, associate dean at New York U.'s School of Education and an acknowledged expert in PPBS, says there are many different ways to define the concept of PPBS. Giving a broad definition of it, Hartley says PPBS appears to consist of the following:

1. A mode of thinking ("common sense by design") in which educators are simply asked to relate scarce resources to clearly defined programs with explicit objectives.

2. A management tool for administering complex organizations and studying the desired outcomes, problems, accomplishments and resources of a school district (people, materials, money, facilities, time, environment).

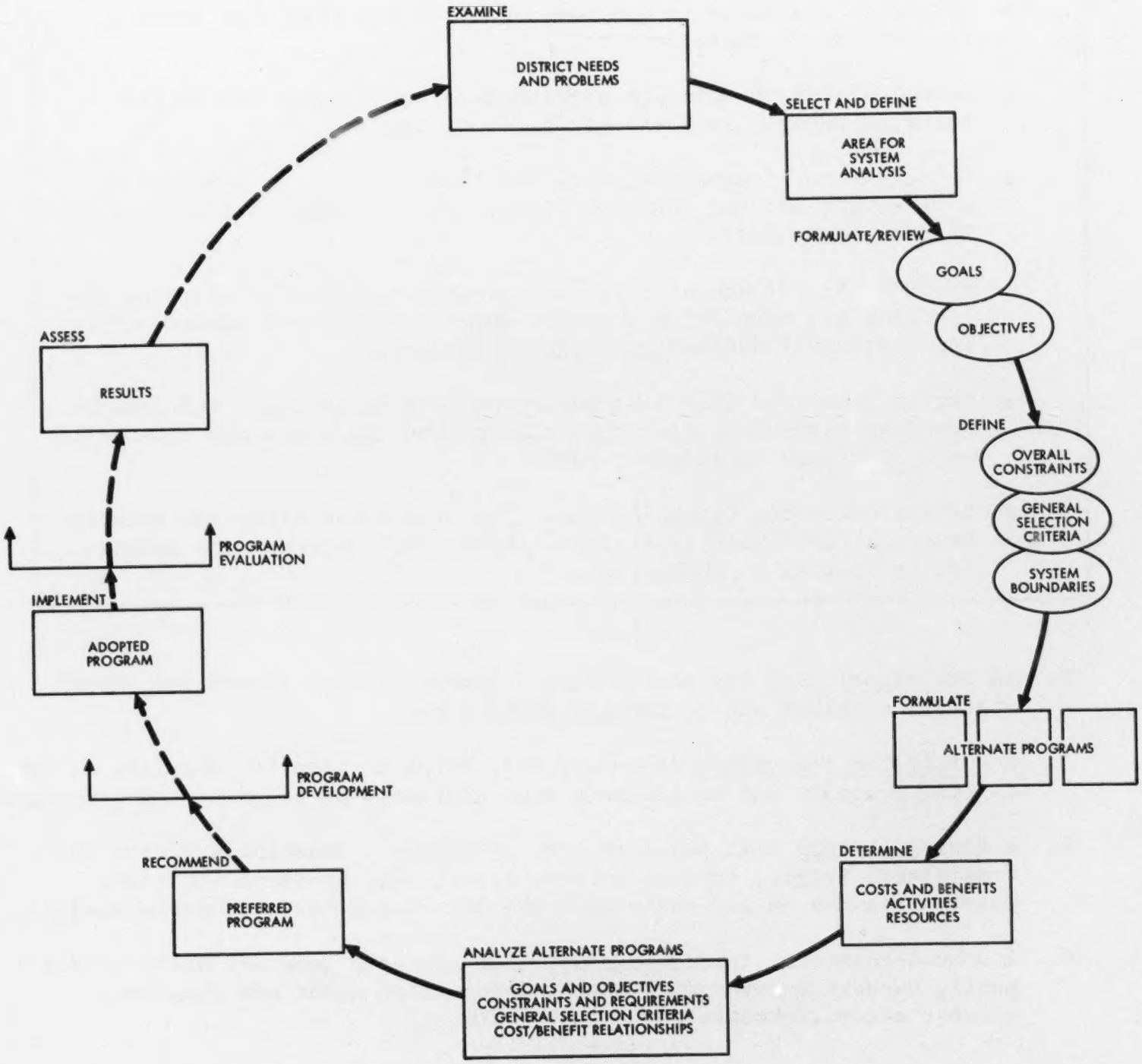
3. A procedure for establishing priorities in terms of a school district's total educational program and available resources.

4. An accountability model that is a constructive response to the current public demands that the schools should be more directly responsible for the results they produce.

5. An information system that generates an interactive flow of relevant data to and from planning, programming, budgeting and evaluating units until the results are either the best possible or at least satisfactory.

6. A participative planning model based on the establishment of a professional team or task force to do the detailed work on developing goals, objectives, program descriptions, program structure, program budgets, evaluation, reports and projections.

Figure 1: Process for Systems Analysis



--PPBS Manual for California School Districts
Advisory Commission on School District Budgeting and Accounting
California State Department of Education

Rationale for ASBO System Outlined

Why develop PPBS or ERMS? The Research Corp. of the Assn. of School Business Officials, author of ERMS, used the following guidelines to develop its system:

- Resources available to a school district are less than equal to the demands of that district.
- School districts exist to produce sets of outcomes--to achieve specific changes in characteristics of learners.
- Objectives of school districts can theoretically be achieved in a multitude of ways (program plans), some of which are more effective than others.
- Productivity of school districts can be increased by learning activities and supporting services which are directed toward achieving previously defined goals and objectives.
- Better decisions regarding selection of program plans and greater benefits from their operation result when the costs are considered on a long-term (multiyear) basis.
- Better decisions regarding selection of program plans and greater benefits from their application result when outcomes are methodically related to objectives.

7. An analytical tool for considering alternative ways to resolve school district problems and to improve performance.

8. A curricular innovation stimulant that helps to identify obsolete or overlapping programs and to generate new instructional programs and procedures.

9. A financial tool that provides for "crosswalk" compatibility with the traditional budget, program budget, latest USOE handbook, or state information system and encourages the use of cost-effectiveness analysis.

10. A school-community relations model that can help generate badly needed public support by providing better information about new programs, student accomplishments and budget costs.

Junk the Jargon Before You Start

Most educators feel entirely at ease using the vague and occasionally fuzzy nomenclature of their field. No harm in that--if it doesn't go too far. It assuredly does go too far, however, when the jargon known as educationese seeps into conversations about PPBS. That is where fancy talk finds disfavor almost immediately. Objectives and subobjectives of PPBS must be clear and concise and measurable to the ear and to the eye. Here are guideline-questions designed to help keep discussions on the straight and narrow when your district starts to assess the merits of a proposed PPBS program:

Is there a set of objectives for elementary and secondary education that is acceptable to all or a majority of teachers and laymen?
Are the objectives for elementary and secondary education precise enough for use in PPBS?
If there is not a set of acceptable and precise objectives for elementary and secondary education, can such a set be developed without considerable delay and effort?
If there is a set of acceptable and precise objectives for elementary and secondary education, would planning, programming and budgeting for these objectives require a complete reorganization of the educational program? Example: If one of the stated objectives were the development of a skill in reading, should a formal horizontal organization for reading be established throughout the school system?
If there is a set of acceptable and precise objectives for elementary and secondary education, could budgeting for these objectives be accomplished? Example: If social development were a goal, how would monetary amounts be estimated and accounted for under social development activities?

Several other points can be made in connection with setting up objectives in precise terms. First, because PPBS is geared to output, namely educational gains by students, objectives must be stated in behavioral terms. Second, the entire professional staff--teachers, supervisors, administrators, guidance counselors, school psychologists --must be involved to minimize the danger of distortion. Otherwise, for example, student gains might be based solely on test results (and inevitably teachers would be evaluated on how well students perform). Acquiring the ability to draw up objectives in behavioral terms, incidentally, is a major purpose in what should be a mass inservice program required wherever a program-planning-budgeting system is adopted. Planning such inservice, in its turn, poses various organizational problems, such as who accepts responsibility for preparing for it, how it should be planned, for whom and when, and so on.

Finally, forget the old days--the times when teachers drew up short-range objectives and administrators managed school budgets and never the twain did meet, at least hardly ever. With PPBS as Cupid, they'll have to start going steady.

--Reproduced with permission
American School Board Journal, August 1970

ELEMENTS OF PPBS

There's no proper place to begin PPBS. One school district may choose to start with planning, another with programming, still another with budgeting. And then there may be school districts which choose to decide a way still untried and unknown to others, a way which could be completely unique to that school district. The standard approach, however, is to start with planning, proceeding then to programming and finally to budgeting. This is the order which many school districts have found to be the most logical.

(See pp.45-49 for the chronology of events leading up to Dade County, Fla.'s, involvement in PPBS.)

School officials in Milford, N.H., however, selected to start with budgeting, move to programming and finally to planning. Their reason was twofold: to help school administrators make the conversion as easily as possible by allowing them to concentrate first on familiar territory (the budget) before moving toward more unfamiliar ground (the long-range plan); and to provide administrators with a firmer data base (the budget) from which to evaluate program alternatives and decisions.

Basic Steps in PPBS

Nevertheless, the basic steps which experts agree have to be taken by school districts employing PPBS include:

1. Develop broad goals and objectives.

2. Design a program structure.

3. Define objectives for each program--including the means for measuring or indicating program effectiveness.

4. Identify or design alternative approaches for attaining program objectives.

5. Make cost-effectiveness analyses of the alternative approaches for each program.

6. Select the best approach for attaining program objectives and allocate funds.

7. Evaluate the results of operating each program and provide feedback to the planning process.

PPBS requires a whole new way of thinking by administrators and teachers. It is not just a new way to budget, nor is it merely relating budgeting to programming--the experts insist upon this understanding. It entails extensive planning and delineation of goals, objectives, priorities and alternative ways of achieving one's objectives.

Communications and Involvement: Essential Ingredients

One thing's certain about PPBS: No matter where the school district begins implementing it as a management tool--skillful and extensive communications are required. So essential is communication that it is impossible to expect PPBS to become operable without it.

PPBS requires a total commitment before it can even be adopted by a school district, those who have installed it say. Not only must a board of education and the superintendent be convinced of its effectiveness, but everyone on the staff must share the belief that PPBS will help make the schools better and more effective places of learning, they add.

Preparing the entire staff and even the community for PPBS, then, is considered a preliminary but absolutely necessary step. No district can ever hope to implement PPBS until everyone understands and realizes what it is all about. PPBS is not the kind of system which becomes operable after a few directives issued from the superintendent's office, from the curriculum coordinator or from the budget director. It is instead a system dependent on cooperative planning by the entire staff, as well as by the community, students and citizens.

In Pearl River, N.Y., school officials said the key to the staff's accepting the PPBS concept was the understanding that the budget calendar would not be used as a framework for planning instructional improvement.

David M. Jones, Pearl River's assistant superintendent for instruction, said: "It was agreed, though, that curriculum development was an ongoing process that could and should be integrated with fiscal planning. There was consensus that budget development should not be a constraint for curriculum development. It was recognized, however, that fiscal resources would be a very real constraint in terms of curriculum implementation."

Pearl River's Jones said that once the decision to implement PPBS was made, the next step was to determine how to involve school personnel and various related groups in the process. The answer was provided by an official school document titled "Procedure for the Preparation of the 1970-71 Educational Program." It contained descriptions of the roles of various school personnel and the process to be followed in implementing PPBS. It provided the following analysis of job responsibility:

Teacher

- Contributes his professional judgment in defining educational objectives, considering alternatives, selecting a plan of action, programming that plan and evaluating the results.

- Assists building principal and district curriculum coordinators in developing educational programs.

- Provides assistance in estimating costs of various programs.

- Reacts to educational program presentations.

Building Principal

- Coordinates the educational program as it relates to his building. Advocates the best possible educational program for his building with some realization of the fiscal situation in Pearl River.

- Directs the development of an education program for his building with the assistance of teachers and the district curriculum coordinators.

- Prepares, with the assistance of teachers and the district curriculum coordinators, the estimated costs of his educational program.

District Curriculum Coordinator

- Coordinates the educational program in his area. Advocates the best program on a K through 12 basis that promotes articulation and student achievement.

  Has primary responsibility for project planning once educational goals are established. Project planning involves a detailed plan of action to accomplish the specified objectives. It includes a time schedule and development of evaluation methods.

- Coordinates the development of a K-12 educational program working with the building principals in teaching staff.

- Assists the building principals in estimating program costs.

Central Office Staff

- Reviews budgets on a K-12 basis and makes recommendations to the superintendent on educational programs and allocation of resources.

Superintendent of Schools

- Establishes systemwide educational goals and priorities.

- Allocates limited financial resources based on a systemwide viewpoint and in terms of district goals.

- Recommends an educational program and budget to the board of education.

Citizens' Budget Advisory Committee

- A group of community residents will review the entire program. This committee will serve two purposes: (a) to make suggestions and recom-

mendations to the superintendent and the board, and (b) to give the community a greater voice in shaping the educational program of the district.

Board of Education

- Reviews and approves a program that provides for the educational needs of the students in Pearl River that is "fiscally responsible and educationally defensible."

How well all these people work at planning PPBS depends directly on the extensiveness and effectiveness of communications. In fact, communication is not only the key to success in getting PPBS off to a good start but also in having it move through its several stages of adoption and on to a continuing system of benefit to the schools.

It's a communication of involvement as well as of information, a two-way street that in itself needs planning, direction and surveillance. A breakdown in communication among the several levels of people involved in PPBS at any time will reduce its effectiveness significantly, if not entirely.

Dale H. Scott, chairman of the Advisory Commission on School District Budgeting and Accounting in California, says PPBS is simple enough so that the general public can understand the approach and become involved in setting and realizing educational goals. He calls PPBS a "packaged" approach for implementing budgetary controls on a results-regulated basis.

Voters in one of California's largest cities, he said, refused to approve bond issues or tax override propositions. In their newspapers they were reading about how their children placed low in statewide achievement tests. Little wonder, he said, that they were unwilling to raise additional funds when their children were not learning.

In California school districts where PPBS is being implemented, Scott claims, the new approach provides a means of demonstrating value and of developing a community spirit of involvement. He points out that the health services program of the El Monte (Calif.) School District was criticized before it implemented PPBS. Now, with all school programs presented in terms of goals, objectives and costs, the public is willing to fund health services because the program is presented in tangible terms--the public can see actual costs related to specific accomplishments.

Another illustration of PPBS's success is provided by the Hillsborough, Calif., schools, Scott says. There, according to Scott, PPBS had to be implemented before the school system could learn why students were receiving low achievement scores in science. A systematic analysis of program costs in self-contained classrooms showed that far less time (and therefore less money) was being spent on science than anyone had realized when budgets were formulated under line-item methods. Knowing this, the school district was able to redirect resources (teacher time and materials) into the science program. Scott claims that the mere fact that a problem area was isolated so remedial steps could be taken shows notable progress.

A similar story is also told in Pearl River, N.Y. School officials there learned that Harry J. Hartley, associate dean at New York U.'s School of Education, was right when he said: "Once the public is forced to think in program terms, it will be more reluctant to cut the budget." Pearl River's officials believe PPBS provides information that allows for the identification of the specific services which would be curtailed or lost as a result of reductions in the budget.

They said: "The public is unwilling to support most reductions once it recognizes the specific services to be reduced. The integration of the fiscal plan with the educational program allowed the board and administration to go to the taxpayers with a budget that they felt was educationally defensible as well as fiscally responsible."

In its manual on Educational Resources Management System (ERMS), ASBO emphasizes proper utilization of people in implementing forms of PPBS.

"The personnel involved in planning," the ASBO manual says, "must have the ability to locate and present information to answer questions. The planning process requires a knowledge base which should include economic, political, social, health, cultural, behavioral and educational information. Program facts from programming, cost facts from budgeting and outcome facts from evaluating should extend this knowledge.

"Although each school official will have his particular style of organizing for planning, and each community will have its unique needs, most authorities agree that the planning activity must not be isolated from the community or from the expert advice of specialists. The day of the superintendent of schools carrying out the school district's planning process in executive session with the board of education is vanishing," ASBO says.

"In smaller school districts," the manual continues, "assistance from consultants and special training programs should provide the superintendent and his limited staff with the expertise required for planning. As school districts become larger, the trend is to employ full-time personnel from fields in which analytical techniques are dominant. However, whether planning is done by the superintendent and a limited staff or by professional planning personnel, the process is the same.

"School officials will wish to involve a variety of people in the planning process through a task force or through committees. In the establishment of planning committees," the manual suggests, school officials may be guided by these considerations:

- The members may include citizens, school staff and students.
- The members should be capable of making meaningful contributions.
- The time duration of appointments should be specified.
- The committees' functions and limits should be prescribed.
- The authority limits of the committees should be prescribed. (Authority should not encroach upon that of the school officials.)
- Members should be informed of events which relate to their endeavor and should be assured of receiving information beyond the time of their active participation.

"The importance of the assessment of needs is an essential part of determining goals and cannot be overemphasized," the ASBO manual says. "A superficial process of assembling preconceived goals of staff, students and citizens does little to improve planning. People, however, can--and do--sharpen their perceptions by reexamining their thinking through the challenge of interaction with others. In the process new information is gathered and utilized. It is naive to assume that consensus can be reached in all aspects of the curriculum through the process of interaction. However, goal clarification and determination is a developmental and cooperative process wherein there is a continuing reexamination of new data. The consensus gained represents the best possible direction for the district at a particular time.

"General goals have long been considered as something to be talked about, and furthermore assumed to be influential to teaching practice simply because they are written, adopted and distributed. If the goals which are developed through the ERMS process are to be functional, that is, to provide direction for implementation, then goal planning must involve the people who are affected. Goals emerge from the examination of the critical issues of living and learning now....

"Many school districts are actively engaged in developing goals as a part of a systems approach in which interrelationships with curriculum, budget and evaluation are recognized," ASBO says. "For example, in the Folsom-Cordova (Calif.) Unified School District, representative groups knowledgeable in a particular area of need produced a brochure to communicate the developed goals, objectives, assessment criteria and program elements.

"Regional educational laboratories are another source of help available to school district planners," the manual says. "As an example, the Northwest Regional Educational Laboratory is actively engaged in a mission to formalize the community planning procedures that establish a closer relationship among agencies of the community and educational planners."

Scott says goals can be identified and established through the use of a task team. Such a team is usually made up of representatives of interested groups, including teachers, students, board members, the superintendent, the senior curriculum officer and the business manager. A basic responsibility of the task team is to report progress and gather recommendations from the various representatives. In this way, Scott says, "the entire community, from teacher to taxpayer, is given an opportunity to take part in developing the goals that will ultimately set the direction of its education.... The community is forced to consider what it wants from its educational system. And the more deeply involved the community becomes, the more the educational system benefits."

What is a typical goal in PPBS? A goal, according to California's PPBS Manual, sets the school district's direction or intent. It is general and timeless and not concerned with a particular achievement within a specified period of time. The goals given in the manual spell out what the schools want to accomplish in light of student and community needs. Although they deal primarily with a district's instructional efforts, other areas such as school-community relations, food services, maintenance and administrative functions should not be overlooked.

The PPBS manual developed for California school districts points out further: "Goals vary according to the characteristics of each school district. For example, the goal statements of a rural district with a multi-ethnic population may emphasize the development of English language capabilities. Other rural areas may have goals dealing with preparation for employment, while the goals of affluent areas emphasize college preparation."

Goals Pinpointed

Examples of typical instructional and noninstructional goals from the manual follow:

- Every child will acquire the habits and attitudes associated with responsible citizenship.
- Every student will be offered the opportunity and encouragement to be creative in one or more fields of endeavor.
- Based on his ability, every student will gain mastery of the basic skills in the use of words and numbers.
- Individuals should be given the opportunity, in terms of their potential, to appreciate the value of the sciences and to understand the purpose and methods of the sciences.
- All physical plants should be open and ready for use. Buildings, equipment and grounds should be kept neat, clean, healthful and attractive at all times for pupil, staff and public use.

Goals necessarily must be revised regularly. As the community changes, the purposes of the schools should also change. In setting goals, planners must be aware of how rapidly changes are occurring. They must ask themselves where they want the schools and students to be next year, five years hence, and 10 years from now; and then be ready to revise and update their goals for more realistic considerations periodically. (See Figure 2, p. 15.)

The Goal: 'Real Needs' of Students

"In determining goals, a system approach envisions a school system looking at the real needs of its students as they grow up in today's world. Further, a system approach facilitates the determination of specific objectives which will enable goals to be realized. These objectives, in turn provide direction for the kinds of learning experiences necessary if they are to be fulfilled. The evaluation program is developed at the same time the objectives are clarified. In other words, the school can, through a system approach, relate to answers to three very important questions: (1) what are our goals? (2) what experiences give the greatest promise of attaining these goals? and (3) how can we evaluate the attainment of these goals?"

--Robert S. Gilchrist and John W. Gott, Thrust, October 1971

Figure 2: Matrix for Planning System Responsibilities

Selected Major Activities in the Planning Process	Board	Superintendent	Task Force (Planning)	Task Force Staff	Resource Personnel	District Professional Staff (Teachers and Administrators)	Citizens	Students
Establishing the task force	D	R_{1-2}				I	I	I
Specifying the responsibilities of the task force	D	R_{1-2}						
Organizing the task force	T	I	D		I			
Identifying problems, needs and resources			D	I	I	I	I	I
Identifying goals			D	I	I	I	I	I
Developing potential general objectives			D	R_2	R_1			
Selecting and recommending goals, general objectives and related programs to the board		C	D	R_1	R_1			
Adopting goals, general objectives and related programs as planning policy	D	R_2						
Recycling the planning process	T	D				I	I	I

Legend: D = Principal decision maker
R_1 = Initiates recommendations
R_2 = Reviews, amends and transmits recommendations
C = Concurs in or approves decisions
T = Technical responsibility
I = Provides relevant information

--Report of the Second National Conference on PPBES and Education Assn. of School Business Officials

Programming: Activities To Achieve Goals

How a school district should go about achieving its goals are stated in the objectives of its programs. Programs are a school's activities. Every program must have a desired accomplishment that can be measured within a given time and under specific conditions. Program objectives, which must relate to goals, then become the basis for course objectives, commonly called instructional objectives. Objectives for programs generally specify the desired performance or behavior of students. They may deal with minimums, averages or terminal performance and can measure performance either of the student or of the total educational program.

Determining a school district's programs, of course, is programming, the second element in PPBS. One can see already how intimately it is related to planning and how difficult and almost unrealistic it is to treat the elements of PPBS separately and individually. To repeat, programs are activities. Although many schools have similar activities, how they are identified as programs or sub-programs will differ widely. Large school districts are almost certain to identify their activities as primary and secondary instructional programs, with the array of subject areas and courses taught as sub-programs. Small districts, on the other hand, are more likely to identify subject areas directly as major programs.

Many administrators implementing PPBS say the toughest decision is to determine what program breakdown is most appropriate for their budget. Experts in PPBS acknowledge three basic approaches to program breakdown: grade level organization; subject matter organization; or a hybrid form, combining grade level organization for the elementary schools and subject matter organization for the secondary schools. Others delineate programs according to organizational categories, services provided or project-oriented categories.

Orlando F. Furno, assistant superintendent for research and development for the Baltimore, Md., schools, advises: "Before any administrator attempts to take his school system down the primrose path of programming costs by subject matter, by grade level, by individual school, he should look at other alternatives and seriously weigh the benefits to be derived against the agony and costs involved. Programming cost in this way involves a vast amount of work because it necessitates the gathering and manipulation of a multitude of cost items. Few schools can easily absorb such expenditures. It involves a series of steps, each bearing its own peculiar mixture of problems." PPBS authorities say any administrator contemplating the installation of PPBS should carefully proceed through steps such as the following:

- Make an inventory of all the district's educational activities.
- Develop and define a workable number of programs.
- Categorize related activities and sub-activities involved in each program.
- Develop a chart of objects of expenditure and corresponding codes.
- Develop a chart of revenue accounts and corresponding codes.
- Identify performance measures for each program and its related activities and sub-activities.
- Construct a data-gathering and processing reporting system for identified performance measures.

At Stony Point, N.Y., 25 programs were defined for PPBS, 19 dealing directly with educational programs such as reading and special education. Six others dealt with programs like student activities, interscholastic athletics, transportation, building operation and maintenance, insurance and debt service.

In the public schools of Dade County, Fla., recipient of federal moneys to design a PPBS model suitable for adaptation in other school districts, the budget listed three broad programs: regular programs, special programs and support programs. The regular programs category includes the following sub-programs:

- Kindergarten
- Primary
- Intermediate
- Supplementary services
- Art
- Business education
- Driver training
- Foreign languages
- Home economics
- Industrial arts
- Language arts
- Mathematics
- Music
- Physical education
- Science
- Social studies
- Vocational training
- Cocurricular

In Chicago, the program budget includes categories at three different levels. At Level I, there are nine program areas:

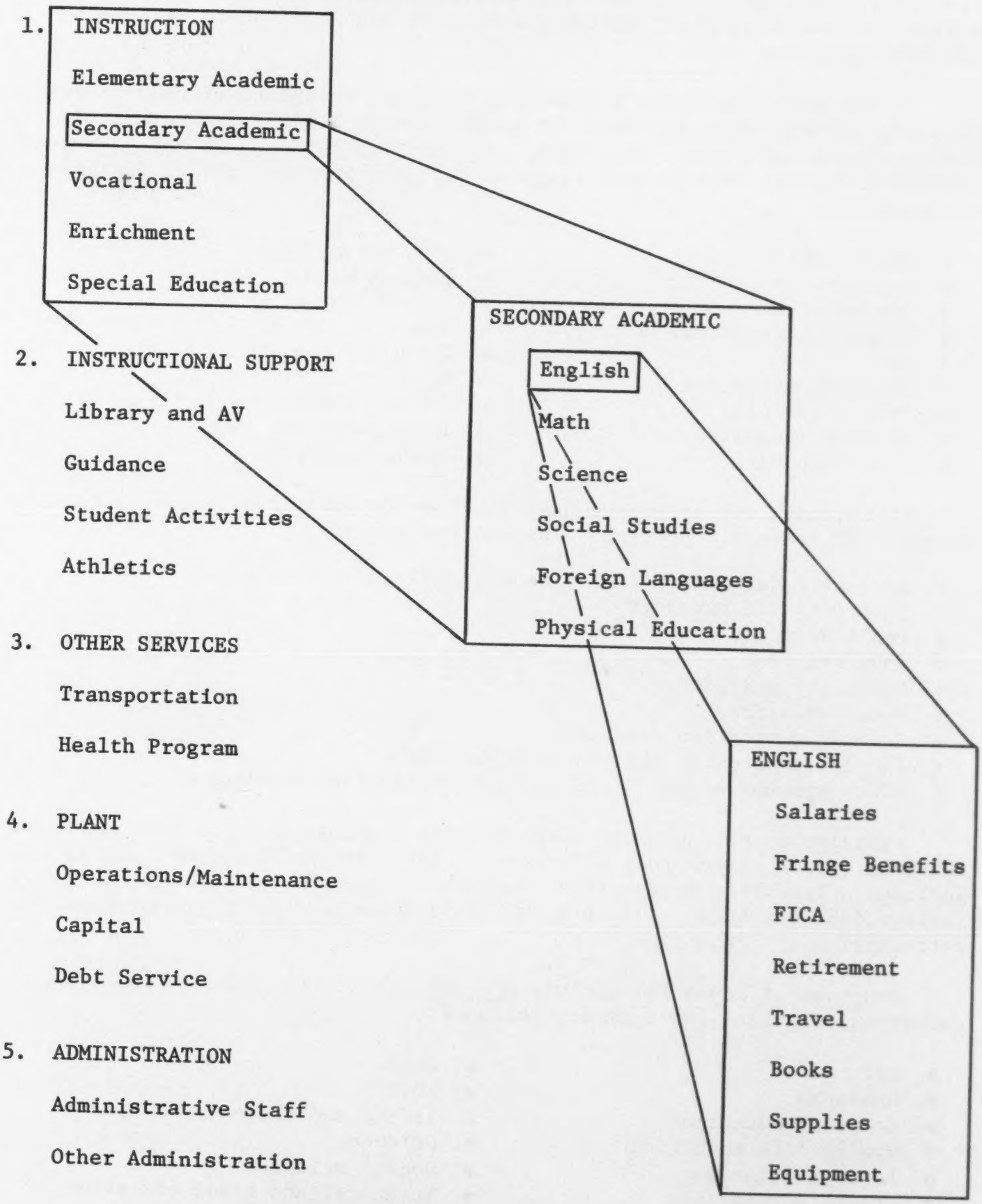
- Executive administration--planning and operational services
- Instructional services
- Pupil services
- Food services
- Community services
- Human relations
- General supportive services
- Facilities-acquisition and construction
- Other appropriations (programs not categorized elsewhere)

Programs appearing under these several headings reflect services which contribute to a common goal or purpose. Instructional services, for example, include: elementary instruction, secondary instruction, continuation school instruction, Washburne adult program, supportive instructional services and extracurricular activities.

Programs at Level III include <u>specific</u> activities and services. Secondary instruction, for example, includes:

- Art
- Business
- Computer education
- Family life education
- Foreign languages
- Health occupations
- Health and physical education
- Home economics
- Mathematics
- Music
- ROTC
- Safety and driver education
- Science
- Social science
- Technical and trade education
- General educational development
- Differentialized curricula for handicapped pupils

Program Budget Categories for Public Education



--Richard S. Durstine and Robert A. Howell
Toward PPBS: Program Budgeting in a Small School District

Chicago's concept of levels of classification is fixed as the underlying framework for the budget structure. Officials point out, however, that the specific budget categories are flexible and will change as the needs of the youth, adults and community change.

Warren Fitzsimmons, superintendent of schools in Easton, Pa., believes an effective model of program budgeting arranges the curriculum into eight large program areas, with each area organized into sub-areas:

- Communication skills, including language skills, reading, linguistics, literature, composition, speech, dramatic arts and foreign languages as sub-programs.

- Mathematics, including all the courses in elementary arithmetic and mathematics as sub-programs.

- Social sciences, including as sub-programs all the histories, geography, economics, sociology and political sciences.

- Natural sciences, including all the specific courses in science as sub-programs.

- Career education, including all the vocational and industrial occupation areas as sub-programs.

- Personal development, including health, physical education, music, driver education, fine arts and painting as sub-programs.

- Student activities, including musical productions, sports and school publications as sub-programs.

- Supporting programs, including library and guidance services as sub-programs.

Programs in effect provide the link between what a district is doing (its activities) and what a district is trying to accomplish (its goals). Every activity or program has an objective--how to help the school district achieve its goal. A likely goal of a school district could be to have its students learn to communicate more effectively. Programs designed to meet that broad goal are language arts, generally called English and writing activities, which have specific objectives stated in performance or behavioral terms.

Robinson suggests four questions which PPBS planners should pose and answer to assist them in defining program objectives. For instance, in a driver education program, the questions and responses would be:

Q. What are the goals of the program?
A. To train all students to drive cars safely and not be a menace to others.

Q. How is the effectiveness of the program to be measured?
A. By determining the percentage of students who pass the state driving test on the first try and the proportion of graduates who have been cited for traffic violations over a certain period.

Q. What level of effectiveness should be sought?
A. To have at least 95% of the students pass the state driving test on the first try, and to have the rate at which graduates are cited for traffic violations during their first licensed year be no more than half the rate for the local driving population.

Q. What constraints are likely to limit program effectiveness?
A. Perhaps a limited number of instructors or of cars, which in turn, would restrict the amount of training that could be given each student.

The relevant objective to this program, according to Robinson, might be: "To provide driver training that assures that at least 95% of the students will pass the state driving test on the first attempt, and to train drivers whose rate of violating traffic regulations will be no more than half that of the local driving population." California's PPBS manual says a typical instructional objective of a sixth-grade English program to support the district's overall goal of communication skills might be: That 85% of all students completing the sixth grade will write an essay of approximately 300 words on a selected topic that meets the following criteria:

- Not more than four errors in word usage, punctuation, capitalization and spelling.
- Essay contains relevant material.
- Paragraphs are structured properly.

Another objective might be that 90% of all students completing the sixth grade will prepare and deliver a three-minute speech which contains proper word usage, pronunciation and articulation, fluency, sentence structure and tonal expression. (See Figure 3, p.21.)

Typical instructional objectives for a beginning course in shorthand could very likely include:

- Students will be able to write shorthand symbols rapidly and legibly.
- Students will be able to write sounds in accordance with Gregg shorthand theory.
- Students will be able to use acceptable grammar, spelling, punctuation, syllabification and capitalization in transcription.
- Students will be able to recognize and produce a mailable business letter from shorthand notes.
- Students will be able to take shorthand dictation at a rate of at least 50 words a minute for five minutes of unfamiliar material with a minimum of 95% accuracy.

Identification of programs necessarily has to follow the determination of district goals. How broadly or narrowly the programs are identified depends on the school district and its internal organization for program managers. In some districts, organization may provide curriculum area coordinators, such as in language arts and vocational education, while others may have specific subject matter department chairmen.

As with the identification of district goals, the community should be involved extensively with the faculty in developing suitable programs.

Figure 3: Typical Program Budget

GOAL STATEMENTS

TO WORK WITH EACH CHILD TO HELP HIM LEARN THE BASIC INTELLECTUAL SKILLS OF LINGUISTIC FLEXIBILITY IN THOUGHT AND TONGUE THROUGH A FOREIGN LANGUAGE.

TO DEVELOP FLUENCY IN A FOREIGN LANGUAGE TO SUCH A DEGREE THAT AN EIGHTH GRADE STUDENT COULD VISIT A FOREIGN COUNTY AND UNDERSTAND AND CONVERSE WITH A NATIVE SPEAKER ON AN ELEMENTARY LEVEL, COMPREHEND PARTIALLY A PUBLICATION IN THAT LANGUAGE, AND MAKE HIMSELF UNDERSTOOD IN WRITING THE LANGUAGE.

OBJECTIVE STATEMENT AND EVALUATIVE CRITERIA

AT THE END OF THE EIGHTH GRADE:

THAT 75% OF THE STUDENTS BE ABLE TO COMMUNICATE IN THE LANGUAGE OF INSTRUCTION AT AN ELEMENTARY LEVEL WITH A NATIVE SPEAKER OF THAT LANGUAGE AS EVALUATED BY THE TEACHER.

THAT 50% OF THE STUDENTS SHOULD BE ABLE TO READ A MAGAZINE OR NEWSPAPER ARTICLE IN THE LANGUAGE OF INSTRUCTION AND STATE BRIEFLY IN THAT LANGUAGE A BRIEF SUMMARY OF THE ARTICLE AS MEASURED BY THE TEACHER.

THAT 80% OF THE STUDENTS WILL BE ABLE TO WRITE WITH EASE A DICTATION EXERCISE IN SPANISH BASED ON PREVIOUSLY STUDIED MATERIAL FROM THE TEXT BASED ON A TEACHER PREPARED DICTATION TEST.

THAT 75% OF THE STUDENTS WILL GIVE A FIVE MINUTE ORAL REPORT IN THE LANGUAGE OF INSTRUCTION ON A TOPIC OF THE STUDENT'S CHOICE TO THE TEACHER'S SATISFACTION.

THAT 70% OF THE STUDENTS WILL PASS THE VOCABULARY TEST PROVIDED IN THE TEXT WITH 85% ACCURACY.

PROGRAM DESCRIPTION

THE FOREIGN LANGUAGE PROGRAM COVERS THE FOUR YEARS OF FIFTH, SIXTH, SEVENTH, AND EIGHTH GRADES IN THE SUBJECTS OF SPANISH AND FRENCH. THERE ARE SIX TEACHERS IN THE PROGRAM, THREE IN EACH SUBJECT. THE FIFTH AND SIXTH GRADE STUDENTS RECEIVE 150 MINUTES OF INSTRUCTION WEEKLY, THE SEVENTH GRADE STUDENTS 135 MINUTES OF INSTRUCTION WEEKLY AND THE EIGHTH GRADE STUDENTS 110 MINUTES OF INSTRUCTION WEEKLY. INSTRUCTION IS PROVIDED IN A CLASSROOM ENVIRONMENT USING TEXTBOOKS, AND INCLUDES BOTH WRITTEN AND ORAL WORK. TEACHERS MAY USE OTHER INSTRUCTIONAL MATERIALS SUCH AS SONGS, PLAYS, MAGAZINES, NEWSPAPERS, FLASHCARDS, ETC. A LANGUAGE LABORATORY IS AVAILABLE CONTAINING RECORDS, TAPE RECORDERS AND FILMSTRIPS.

PROGRAM TITLE: FOREIGN LANGUAGE

--From PPBS Manual for California School Districts
Advisory Commission on School District Budgeting and Accounting
California State Dept. of Education

The writing of objectives for programs, however, more properly falls into the realm of curriculum experts, teachers and consultants. As professional educators, they will best be able to decide how specific course areas will be able to achieve certain goals. California's Scott feels objectives should be developed under the direction of a task team, much the same as he described their involvement in setting district goals. He says objectives should be stated in terms of measurable achievements that will advance the system toward its goals. He stresses that every objective must also state a means of measuring accomplishment and a time schedule for completion. Examples:

- Upon completion of the academic year, a sixth-grade student will be able to read and pronounce, with 80% accuracy, a list of sixth-grade words selected from the basic Stanford Achievement Test-Reading.
- Upon completion of the academic year, 60% of the 11th-grade students will achieve scores on reading comprehension no lower than the San Diego County average on standard tests.

Alternatives Provide Necessary Flexibility

An important step in programming is the identification of alternatives. There's more than one way to achieve any goal and alternative ways should be spelled out so that the most efficient and economical one can be pursued. As in all phases of PPBS, programs must be reviewed and studied periodically so they are in keeping with the district's goals. They must also be constantly

English Teachers Warn of Dangers

A note of caution in the use of behavioral objectives in the teaching of English was sounded by the National Council of Teachers of English (NCTE) at its 1969 annual meeting. NCTE's Commission on the English Curriculum advised teachers that "real damage to English instruction may result from definitions of English in the behavioral mode." The commission urged all teachers to "be open-minded about possible alternatives for defining and structuring the English curriculum--including the use of behavioral objectives." It urged caution, however, on the part of all teachers and adopted the following resolution:

"Resolved, that those who proposed to employ behavioral objectives be urged to engage in a careful appraisal of the possible benefits and the present limitation of behavioral definitions of English with reference to the humanistic aims which have traditionally been valued in this discipline.

"And be it further resolved, that those in the profession who do undertake to write behavioral objectives (a) make specific plans to account for the total English curriculum; (b) make an intention to preserve and, if need be, fight for the retention of important humanistic goals of education; and (c) insist on these goals regardless of whether or not there exist instruments at the present time for measuring the desired changes in pupil behavior."

evaluated to see that they are, in fact, meeting the district's goals. Programmers cannot afford to evaluate their activities only at the end of a planning cycle. If objectives are not being attained, either the program must be redesigned or the objectives made more reasonable.

Other ways than standardized tests should also be used to measure achievement of objectives, according to Scott. He suggests that results of classes relating to government and sensitivity to society could be measured in terms of a student's tardiness record or his participation in student government. Accomplishments in English might be measured, Scott said, in terms of how many books a student reads or how much he participates in class discussion.

Gerald Robinson, writing in Battelle Research Outlook, covered the selection of alternatives simply and concisely: "Once program objectives have been defined, the next step is to identify or design various possible approaches for implementing each program. This is where the success of PPBS depends on the planner's ingenuity. Having a number of possible options does not, of course, guarantee anything, but it does give management a chance to pick the best available course of action."

How To Choose Alternatives

Robinson illustrated how alternative approaches may be generated: "In Ohio, approved driver education courses must provide 36 hours of classroom instruction, plus either 24 hours of in-car training or a combination of 12 hours in a car and 12 hours in a driving simulator." He then listed the following ways of handling non-classroom training for a driver education program:

- 24 hours in-car with certificated teacher.
- 24 hours in-car with commercial driver-training-school instructor.
- 24 hours in-car with paraprofessional instructor.
- 12 hours in-car with certificated teacher and 12 hours of simulator.
- 12 hours in-car with paraprofessional staff instructor and 12 hours of simulator.

"Other possibilities also might be considered," Robinson said. "For example, when permitted by law, in-car training could be conducted on a driving range. This would allow simultaneous use of a number of cars, with a single instructor supervising the range. The student/teacher ratio would be increased, thereby reducing the costs for in-car training.

"Legal limitations, public attitudes, political considerations, school policy, staff capabilities, available funds and other factors must be considered carefully in designing alternatives. Ingenuity and creativity are essential in providing the best possible options from which to choose."

How does the planner pick the best way of implementing each program? Robinson said "systematic examination of the possible courses of action for

Sophisticated Evaluation Developed

The Center for the Study of Evaluation at the U. of California at Los Angeles has developed sophisticated PPB systems for discriminating between those program results which can be tested and those which can only be judged. It has also identified the needs at each level of decision making for the development and implementation of sound educational policies.

achieving program objectives is of major importance in applying PPBS. Feasibility, costs and effectiveness must be given prime consideration in judging and in selecting from the alternatives; this process is called cost-effectiveness analysis. Analyzing the cost-effectiveness of possible courses of action can be a complicated task, requiring trained and skillful analysts," he continued. "The process cannot begin until criteria have been set for evaluating the alternatives. If both cost and effectiveness are allowed to vary, comparing options becomes very complex and selection becomes largely a matter of judgment. Practically, the judging usually is done by setting either a tolerable cost or a desirable effectiveness level. Then, the option that (1) will achieve the most at the set cost or (2) will cost the least for the set level of effectiveness is picked as the best one."

What if administrators haven't the data or experience on which to base predictions of effectiveness? The most obvious step, Robinson said, "is to use specialists who are familiar with the various courses of action. Another approach is to study data and reports on the experiences of other school systems. When these are used as a basis for the analysis, consideration must be given to how a comparable program was conducted and to differences in the students, teachers, equipment and other resources.

"Costs naturally are easier to predict than effectiveness because they reflect resources used whereas effectiveness is based on results achieved," Robinson said. "For this reason, there is likely to be a tendency to base the assessment on set financial limits. The prediction of effectiveness often depends on subjective judgment. With experience, however, better techniques for assessing such subjective matters will evolve. Until they do, such prediction is a matter for specialists. In any case, the last move in evaluating possible courses of action is to rank the alternatives on the basis of assigned values, so that the best option will stand out clearly.

"An increasingly promising way to predict costs and effectiveness more precisely," Robinson said, is to use mathematical models--"powerful tools once they have been validated." He said such models can aid management in choosing effective and efficient alternatives.

"Cost-effectiveness analysis does not make decisions. It does supply information that increases the decision-maker's knowledge, and it sharpens his judgment by reducing uncertainties. But other unmeasurable factors must be considered--e.g., political climate, community goals and economic conditions. Only the individual or group that ultimately is responsible for results--like the superintendent or the board of education--should make the final decisions," Robinson concluded.

Figure 4: Matrix for Programming System Responsibilities

Selected Major Activities in the Programming Process	Board	Superintendent	Programming Team(s)	Programming Team(s) Staff	Resource Personnel	District Professional Staff (Teachers and Administrators)
Creating Professional Team(s) for programming	T	D				R_1
Specifying roles and responsibilities of the programming team(s)		D			I	I
Translating general objectives into appropriate performance objectives			D	R_2	R_1	I
Developing alternative program plans			D	R_1	R_1	I
Allocating resources to program plans		C	D	R_1	I	I
Selecting "best" program plans	T	C	D	R_1	R_1	I
Organizing plans for implementation and operation		C	D	R_2	R	
Communicating accumulated data		C	D			
Recycling the program process	T	D				I

Legend: D = Principal decision maker
R_1 = Initiates recommendations
R_2 = Reviews, amends and transmits recommendations
C = Concurs in or approves decisions
T = Technical responsibility
I = Provides relevant information

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Evaluation: A Keystone

Evaluation is not generally identified in the acronym PPBS. It is nonetheless important. In fact, it is absolutely essential and, indeed, the very keystone of the entire system. Without evaluation as a basic ingredient, PPBS loses its thrust in providing school districts with a total system for accountability. Without evaluation, there would be no reason to utilize alternatives. Without evaluation, school programs would have no reason to change. Without evaluation, people would never know whether or not they were achieving their goals and objectives.

In discussing evaluation and alternatives in PPBS, Scott says programs should be assessed in terms of objectives attained within the limits of the proposed budget and the multiyear financial plan (MYFP), which shifts the emphasis from program costs in next year's budget to costs over several years. "By projecting the costs and growth data for several years," he maintains, "the future impact of current decisions can be effectively evaluated.

"To illustrate how programs are selected and incorporated into the MYFP, picture a community that is concerned over the reading achievement demonstrated by students' scores on the SRA reading test. This year, the district has adopted goals and objectives aimed at improving the students' reading skills. The district now faces the problem of selecting a program from a group of alternatives on the basis of evaluation data.... The best investment (theoretically) would be the alternatives with the lowest cost/benefit relationship figures. However, there might be special circumstances: state funds might be available only for programs with projected improvements of 15% or better. Or federal funding might be earmarked for remedial work only. It must be emphasized, however, that the system does not make the decisions," Scott says. "What it does is provide decision-related information in a format which clarifies what benefits can be expected from alternative courses of action.

"Once programs have been tentatively selected, the key information from the program data sheets is summarized in a tenative budget and MYFP.... Current and projected costs are entered to provide visibility into the future implications of current decisions. MYFP's are finalized through a process of analysis and revision of current programs and the development of data for alternatives in the form of new programs. Further, they are reviewed and updated each year as an integral part of the budgeting process."

Budgeting: Completion of the Cycle

The final element in PPBS is budgeting. Arriving at this step, however, does not mean the end of the line has been reached. It merely signifies that a complete cycle of the PPBS process has been made. The cycle, then, recurs with planning, programming, evaluating and budgeting occurring nearly simultaneously and always continuously.

School budgets, as they have been prepared throughout the country for several decades, have confused more than they have explained. Most people, including many persons working in the schools themselves, have only a casual familiarity with official budgets. They can define a budget as a numerical

Figure 5: Matrix for Evaluating System Responsibilities

Selected Major Activities in the Evaluating Process	Board	Superintendent	Professional Administrative Staff	Teaching Staff	Resource Personnel	Students	Noncertified Staff
Defining required internal and external capabilities and relationships		D_1	R_1	R_1	T		
Specifying roles and responsibilities for accomplishing evaluating tasks	T	D_1	D_2	D_2	I	I	
Administering basic evaluation plan (prepared in programming process)		T	D_1	D2	R_1	I	I
Developing plans for ancillary evaluation		C	D_1	I	R_1	I	I
Approving plans for ancillary evaluation	T	D_1	D_2	R_1	I		
Administering ancillary evaluation plans		T	D_1	D_2	I	I	I
Analyzing evaluation data		T	D_1	R_1	I		
Communicating evaluation data	T	D_1	D_2	D_2			
Making appropriate modification within the school system	T	D_1	D_2	R_1			R_1
Recycling the evaluating process	T	D_1	D_2	R_2	R_1		

Legend:

D* = Placement of prime responsibility varies from state to state
D_1 = Principal decision-maker
D_2 = Makes subordinate-level decisions
R_1 = Initiates recommendations
R_2 = Reviews, amends and transmits recommendations
C = Concurs in or approves of decisions
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listing or itemization of certain amounts of money for specific items, but that's about the extent of it. Further explanations are difficult, and nearly impossible if inquiries are specific.

Even with more than a casual acquaintance with budgets, most people would not be able to discover anything more about the schools than that x-amount of dollars were to be spent on salaries, on textbooks, on supplies and materials, on administrative services and the like. An inquirer would hardly learn the justification of these "line items" as they are called in traditional budgets, much less know the specifics for which they were being spent.

Traditional budgeting has emphasized the allocation of moneys for input--what goes "into" educating: salaries, materials, services--without, or with very little, regard for output--how much learning takes place. Budgeting in PPBS, on the other hand, allocates moneys not by line items, as in traditional budgeting, but by programs. A school district which has identified language arts as a major program will allocate an amount of money it feels it can afford to operate this program. That amount pays for all the expenses of the proposed salaries, materials and services. There are no hidden costs, and virtually anyone can understand what it's costing to operate any given program. See examples of traditional and program budget pages in the appendix of this report, pages 54-55.

Warren Fitzsimmons, superintendent of schools in Easton, Pa., and a pioneer in PPBS, explains: "Historically, the line-item, object-oriented budget was designed as an inventory of school expenditures, the primary purpose of which was fiscal integrity. People just did not want public officials converting their tax money to uses other than those specifically indicated. Beginning in 1920, the traditional system of function-object budget began to evolve in which expenditures were classified and defined. This type of budget has numerous weaknesses. It is inflexible, stereotyped, misleading, ambiguous and lacks specificity. It is easy to manipulate for special interest purposes, discourages experimentation, encourages automatic acceptance, and is characterized by obscurity, pretense and deception.

Restructuring the budget on the basis of programs, he feels, can achieve greater effectiveness by being able to communicate better what school taxes are purchasing, to establish criteria for the decision-making process in evaluating existing and proposed programs, and to satisfy the urgent need for a more adequate system of identification of public school expenditures in terms of school programs. He defines a budget as an annual estimate or plan for projected expenditures, which at the end of a fiscal period, is superseded by the record of actual expenditures. "These outlays become the permanent record of expenditures and specific determiners of the success of the budget only when the benefits achieved are evaluated in relation to the objectives of the school system," Fitzsimmons says. "Expenditures in the budget have meaning and purpose, therefore, directly proportional to the benefits they actually purchase." A budget which can accomodate curriculum programs and behavioral objectives, he feels, is superior to one that cannot.

How much money is allocated to each program at the outset of PPBS more than likely will be based on amounts budgeted in the district's former line-item budgets. The transition to budgeting by programs is slow. Costs for

Figure 6: Matrix for Budgeting Responsibilities

Selected Major Activities in the Budgeting Process	External Authority	Board	Superintendent	Professional Administrative Staff	Teaching Staff	Citizens
Defining capabilities and required organizational relationships			D_1	R_1		
Specifying roles and responsibilities for accomplishing budgeting tasks		T	D_1	R_1		
Casting programming data into program budget format			C	D_1		I
Reconciling of program requirements and resources availability			T	D_1		
Making visible the planned use of resources			D_1	R_1		
Preparing proposed budget documents			T	D_1		
Transmitting proposed budget documents to board of education			D_1			
Decision making regarding budget adoption	D*	D_1	R_1	I	I	D*
Procuring resources		T	D*			
Applying resources according to plans (initiation of program plans)		T	D_1	D_2	D_2	
Converting resources into outcomes			T	C	D_1	
Accounting and reporting on use of resources			T	D_1		
Recycling the budgeting process		T	D_1	R_{1-2}	R_1	R_1

Legend:

D* = Placement of prime responsibility varies from state to state
D_1 = Principal decision-maker
D_2 = Makes subordinate-level decisions
R_1 = Initiates recommendations
R_2 = Reviews, amends and transmits recommendations
C = Concurs in or approves of decisions
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--Report of the Second National Conference on PPBES and Education Assn. of School Business Officials

any given program literally have to be eked out of the traditional budget. Costing out a program, as it is called, is not easy. After a few years of budgeting in PPBS, however, allocating funds becomes more and more dependent on what revisions take place in the district's goals and objectives.

Charles A. Szuberla, Skokie, Ill., superintendent, adopted an interim step before introducing PPBS. Hoping to answer the inevitable "whys" from staff and community, he developed an analysis of expenditures using data already available in existing budget forms, requests and documents. As data were compiled, the entire staff became better informed about budget emphasis, priorities and deficiencies.

As a middle step between confusion and comprehension about budget matters during the transition to true program budgeting, Szuberla broke his budget's educational fund down into the following categories for analysis:

1. Increased enrollment
2. Normal salary increments
3. Salary schedule revisions
4. Fringe benefits
5. Self-liquidating accounts
6. Contingency account
7. Program improvements

Easton's Fitzsimmons says the biggest problem in restructuring the traditional budget to a program budget is accurately assigning budget items to the various designated programs. Four basic methods of allocation are necessary, he says, to distribute equitably the specific costs required in reconstructing the budget for any given program. They are:

1. Costs, identifiable with programs, such as teachers' salaries, are prorated in respect to the scheduled time devoted to a particular program.

2. Costs related to buildings, such as operation, maintenance or insurance, are prorated on the basis of proportion of time and space used to house a given program.

3. Other costs not identifiable with programs, such as administration, are distributed on the basis of the proportion of teaching periods in a program to the total teaching periods of the school district.

4. Costs, e.g., for audiovisuals, are distributed on a per-pupil basis.

He explains: "A determination is made of the number of teaching periods existing on the secondary grade levels--usually a teacher is expected to teach five periods per day. In order for elementary teachers to be on parity with secondary teachers, the teaching day is converted to class periods by multiplying the teacher's day by five. Then the number of teaching units for each school strata is totaled. The percentage of such units relative to the total is found for each grade level.

"These percentages are applied to the total amounts budgeted for any grade function, and the sums obtained are added to the respective total

amounts distributed to the grade levels. The grand total of expenses found for any given grade level is divided by the respective grade level units in the program, and these are in turn prorated for the particular program being studied. "Operation of plant to all programs is distributed in two ways. Salaries and employe benefits of custodians are identified by buildings and in turn allocated to major programs. Classrooms, gymnasiums, cafeterias and special areas are distributed in the same way. The balance of (other) accounts is totaled in its entirety and distributed on a square-foot basis. Maintenance of plant could be distributed in much the same way as operation of plant depending on the sensitivity of the accounting system."

Other categories, such as attendance services, health services, pupil transportation, fixed charges, food services, capital outlay and debt service, are prorated to grade levels in proportion to reported usage or in proportion to enrollment or other pertinent data, Fitzsimmons says. Methods of prorating line-item budgets to program areas, according to Fitzsimmons, include:

Time:	Salaries and retirement.
Time-floor area:	Heat, rent, property insurance.
ADM or ADA:	Attendance services, health services, other fixed charges, other administration expenses.
Hourly consumption:	Electricity (not heat), gas (not heat), water.
Number of pupils:	Transportation services, food services.
Quantity consumed:	Other instructional expenses, other expenses of plant operation, other expenses of food services or student body activities, textbooks and supplies.
Mileage:	Transportation.

A school adopting PPBS may determine from previous traditional budgets that it has spent $150,000 of teacher salaries to conduct a program in English instruction and that other expenses amounted to $50,000. After a year or two on PPBS, school officials may find that the district's objectives for the English program are not being met, or perhaps the objectives were not realistic--that students were not learning what the objectives said they should be learning. In short, the output is not what was expected.

Several things could happen as a result. The objectives could be rewritten, to be more or less ambitious. The $200,000 for the program could be changed, upward or downward, to be in line with the objectives. Priorities could be reestablished--perhaps the objectives and fiscal amounts are satisfactory if different methods could be employed. Considerations such as lay instructional assistants at lesser salaries than teachers are paid, the use of paperbacks rather than anthology textbooks for resource materials, and differentiated staffing are important to school officials seeking ways to get the most for their district's money.

With this kind of flexibility--the kind that PPBS affords--school people are in a good position to discuss their budget with the public. They have something to show, they can present alternatives, they can suggest that their goals and objectives be changed. Indeed, it requires communications par excellence--but, then, it has all the potential to close any communications gap which may exist between the schools and their constituents.

Sample Program Data Sheet

PROGRAM TITLE _____ _____

PROGRAM ID NO. _____ Program No. _____ PROGRAM LEVEL _____

PROGRAM DESCRIPTION _____

_____

PROGRAM OBJECTIVE _____

_____

PROGRAM EVALUATION METHOD _____

_____

_____

SUPPORTED PROGRAMS _____

SUPPORTING PROGRAMS _____ _____ _____

RESPONSIBLE INDIVIDUAL _____ _____

RESOURCE ELEMENTS (1)	CURRENT YEAR (2)	FIRST YEAR UNITS (3)	FIRST YEAR RATE (4)	FIRST YEAR AMOUNT (5)	2ND YEAR (6)	3RD YEAR	4TH YEAR	5TH YEAR
SALARY TEXTBOOKS SUPPLIES OTHER								
DIRECT TOTAL								
ALLOCATED INDIRECT COSTS								
TOTAL								

REVENUE SOURCES (7) _____

ADDITIONAL INFORMATION (8) _____

APPROVED BY _____

1 Specify the required resources for the operation of the program.

2 The current year's actual program operating costs should be stated here by object classification by the business office. If actual costs are not available, estimated costs should be entered.

3 Enter the units of resource elements required for the operation of the program.

4 The unit price of the resource elements should be entered here by the business office.

5 The units should be extended by the unit price (rate) and the result of the extension entered here.

6 The expected costs of the program operation for the next four years should be projected.

7 Enter the source(s) of revenue (i.e., state, federal, local) and the actual amount expected.

8 Any additional information which could be helpful in the budget preparation or the decision-making process should be entered here.

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School Management, February 1971

THE FUTURE OF PPBS IN THE SCHOOLS

The concept of accountability, it appears, is here to stay. If there's doubt in the minds of some people about the accountability of public schools prior to the 1970s, there can be little doubt now that schools are being, and will continue to be, held accountable. Schools and public education during the present decade have reached such record levels of financing that their accountability cannot be overlooked, especially since those levels have been occasioned largely by higher teacher wages.

Another reason is their product--how well prepared the youth of the country are to take productive places in today's highly technical, continually changing society--is too visible to allow schools to escape accountability.

In the framework of this kind of demand for accountability, PPBS is believed to have great potential. PPBS provides schools with a realistic means to account for themselves. Taken out of the framework of accountability, however, PPBS could be considered as nothing more than a passing fad. That's a real possibility and it could become an impediment if educators, citizens and school boards become so intent about PPBS that they make it an end in itself. PPBS, authorities say, must always be kept in its place as <u>one</u> means to achieve accountability.

PPBS enables educators to account for the things citizens and communities are currently demanding. The U.S. Chamber of Commerce published a seven-point program, which it urged businessmen and citizens to adopt for their schools. PPBS is involved in most of them. The seven points are:

- Adopt and professionally implement special official accountability policies requiring independent accomplishment audits, relating intended accomplishment to actual results.

- Set up regular policies and procedures to locate good practices--ways to get better results--and see to it that these better ways become standard practice in the classroom. Include policies and procedures relating to better management of the organization.

- Set aside money as developmental capital to serve as an incentive for putting accountability into operation.

- Give personnel--through school or team units--bonus pay for achieving demonstrable results in the tough-priority learning areas.

- Institute a quality control and feedback procedure for all programs.

- Plan, adopt and implement a short- and a long-range program to increase educational productivity by using performance contracting or variations with staff and/or private enterprise.

- Involve the staff, students and the community in the design and implementation of the productivity program.

Advantages of PPBS

PPBS doesn't provide school boards or educators with magic wands or top hats filled with all the answers to current problems schools are experiencing. Its advantages, however, are numerous.

A significant advantage is that PPBS puts the means to be accountable into the hands of educators. Demands for accountability today are so vehement that if educators hide their heads, impatient citizens may turn to others outside the schools to give them the answers about whether their schools are performing and producing.

Public schools will always be subject to the scrutiny and criticism of the public--that's the vitality of the democratic system. Educators have been entrusted with the management and operation of the public's schools--that's their stewardship, a mission which they don't want to lose. PPBS's distinct advantage is that it allows educators to give testimony to their own stewardship. To place their accountability in the hands of outsiders, so to speak, could be considered a sign of failure and incompetence.

PPBS has important advantages for each public the schools serve, say experts in school accountability. Boards of education which have the ultimate responsibility by law for providing education to their cities, towns and communities find that PPBS provides them with the rationale for making policies. By implementing PPBS, boards can systematically assess the performance of what's happening in their schools. In turn, then, they can better determine future costs; and, most importantly, they can report clearly and reasonably school budgets to their constituents, the public.

Administrators, too, find that PPBS enables them to account for their actions. As a management tool, PPBS provides school administrations with the vehicle for short- and long-range planning, realistic assessment of needs, determination of goals, definition of objectives, selection of alternatives, means of evaluation and, finally, the allocation of resources according to needs, goals and resources.

Proponents of PPBS say involvement is the special advantage PPBS gives to teachers and support staff. Teachers who have always wanted participation in the decisions that relate to their work find PPBS involves them in policy and goal formulation, in program design and in short- and long-range planning. PPBS, with its interest in output (end results) as well as input, helps create what most teachers want--an atmosphere for innovation.

"Teachers can rise to new heights of professional competence and performance if they seize the opportunity afforded by PPBS," the California Teach-

ers Assn. (CTA) says. Two critical questions the CTA poses for serious thought by teachers in order to make PPBS the servant and not the master are: (1) "What new or modified decision-making structure do we want in our school district? and (2) How do we wish to expand the role of the classroom teacher?"

Pointing out further benefits likely to accrue to teachers working to implement PPBS, the CTA explains: "Increased emphasis on teacher planning of goals and objectives infers higher expectations in terms of performance and competence from classroom teachers. Teachers have always planned their presentations daily, weekly, monthly and yearly, but they have not always been required to match their objectives with the district's goals. They have not always been asked to identify in detailed written plans behavioral objectives, terminal behaviors, instructional methods, planning time needs, personnel role changes, or to identify alternative programs for different student populations, to make project revisions, to identify information requirements needed for better decisions in curriculum and instruction, to rate and identify curriculum materials, to develop performance and to test criteria for evaluation purposes. PPBS procedures require detailed, integrated, alternative proven instructional programs that are written and can be evaluated in terms of performance outcome.

"The rhetoric of differentiated staffing--system team approach to planning instruction and curriculum--will become a reality," CTA says. "No longer will a single teacher in isolation from his colleagues be able to escape the reality of being specific about activities in the classroom. PPBS clearly says that even if teaching is a mysterious art, some of that instructional art will be documented in print for all to see and evaluate."

For the community, PPBS affords involvement and participation as it does for the teachers, but most importantly it enables people outside the school organization to understand costs, their framework and their rationale. Through PPBS, people see how complete costs are reached--in much the same manner as they compute their complete costs for a vacation: transportation, motel, meals, entertainment, tips and the like. People looking at their school district's traditional budgets have seen the allocation of huge amounts of money for input alone. They could see a total for teacher salaries and for administrator salaries without ever understanding where, why or how. Proponents of PPBS explain the traditional way to budget doesn't really make as much sense because it does not ensure a systematic effort to specify whether the school district is getting what it wants and needs.

In the state of Washington, a Special Levy Study Commission was created in 1969 to look into that state's broad financial structure and to recommend treatment for some of the public schools' difficulties. The commission recommended full implementation of PPBS as a result of its study into finances and curriculum. In its report, the commission explained the advantages of PPBS:

"In the current budgeting system used in most districts--the 'object-function system'--emphasis is placed on explaining the functional usage of resources. For example, categories of expenditures are specified, types of facilities are specified and instructional materials (textbooks) are specified. But there is little attempt to discover how the resources are used and it is often very difficult to break out certain programs or 'subprograms'

(e.g., grade-12 English) and see whether they are inadequately, adequately or excessively funded. The emphasis on 'object' (e.g., money for maintenance or administration) instead of programs inhibits sensible planning. The temptation in the annual budgetary process is simply to make an automatic increment in each object for the coming year, instead of considering the utility of the programs. Yet a school exists to bring programs--mathematics, science, language arts--to the students, not to bring them personnel, maintenance and administration. Under the present system, it is hard to evaluate performance, hard to set priorities and hard to select least-cost alternatives.

"Hence, a system of budgeting is needed that will gradually move from management of resources (with relationships to results only inferred), to a system which stresses the utilization of resources strictly in terms of their contributions to attainment of desired results. The needed system, our research and interviews persuade us, is a Planned Program Budgeting System (PPBS)," the Washington commission said.

"The case of PPBS rests partially on several assumptions of the commission. One is that the state has limited funds available for the educational system and must be able to set priorities; another is that the purpose of common school education is to induce learning in young people, and that learning is a product much of which can be measured. We also have assumed that by analyzing the various activities that go into meeting the objectives of education--by costing them for effectiveness and by considering alternative ways of achieving the same or better results--the budgeting decisions can be sharpened greatly," the commission said.

"PPBS will provide a uniform and understandable budgeting process for all levels of school authority--from the individual school to the district to the intermediate district to the state. Information on finances for decision makers, also at all levels, will be more easily available--and available faster--than it is today. At the same time, it will be possible to project into future years the implications of present policies. Cost-effectiveness data will help educators to discover which programs are working well and which are working poorly, and the system will lay out clearly the alternatives for improvement. All decision makers will be able to establish priorities for allocation of scarce resources. They will be able to plan.

"Under a PPBS for the common schools, legislators and other officials will be better prepared to ask tough questions of those expending the state's funds at the local level. Educators, for their part, will be better armed for defending policies and priorities they consider important," the commission concluded.

Similar conclusions were reached by the Western New York School Development Council. After weighing its merits and weaknesses, this group said the potential benefits of PPBS are sufficient enough to warrant the risks that must be taken to implement PPBS. The specific benefits the council believes a school district will realize from PPBS are:

- School district officials will concentrate more on alternatives and on costs and, hopefully, produce a more effective use of school district resources.

- The emphasis on objectives will give school district leaders a better understanding of where they are and where they are going.

- School district activities should be better coordinated, leading to the identification and elimination of unnecessary areas of overlap.

- School district leaders should concentrate more energy on the establishment of priorities. Given the limited resources of school districts and the myriad functions schools are trying to perform, school officials may concentrate more energy and resources on only the most pressing needs and eliminate those functions which are of marginal importance.

- More information should be available to decision makers at critical decision points, leading to the generation of more informed (or less uncertain) decisions. In this regard, this concentration on the quality of information available should help to pinpoint research needs by exposing the kinds of information needed but not available.

- The "total costs" of activities should be identified. This is in contrast to current budgeting and accounting practices which "hide" complete costs.

- The serious effort to develop output measures for school district programs should lead to a better understanding of the purposes of those programs, even though development of satisfactory output measures will be a task that consumes much energy over a long period of time.

- The use of a program budget should result in a public more informed about the activities of local school districts. While this improved understanding will not automatically encourage residents to approve higher education costs, one doubts that vague explanations will ever again be satisfactory.

- In larger districts, PPBS can provide the mechanism through which responsibility is decentralized and different programs are developed in different schools within the same district.

Disadvantages of PPBS

PPBS is not a panacea. This should be obvious. Anyone looking for clear-cut answers in PPBS or in any management system, for that matter, will be woefully disappointed. PPBS has some serious drawbacks, even its most ardent proponents hastily admit. Despite these drawbacks or disadvantages, they believe PPBS has great potential in the future because it gives the public a hand in school planning, it gives educators as planners considerable flexibility in management, and it gives school boards sound bases for policies.

Several of the weaknesses or disadvantages of PPBS (proponents view them more as cautions to be aware of) include:

- Organizational conflicts will not be eliminated.
- Long-range planning is subject to miscalculations.

- A great deal of time is required for implementation.
- Some people oppose, even resist, planned change which PPBS represents.
- Stress on outputs (results) tends to disregard the intangibles of the learning process.
- Placing dollar amounts on everything (programs) tends to be too materialistic.

The Western New York School Development Council listed the following cautions to be exercised during implementation:

- PPBS is not a cost reduction system. It should not be implemented in the hope that it will bring down the costs of education.

- There is a danger of future conflict between the educator, a generalist, and the specialist who will be trained to do some of the analysis required in an operating PPB system. The purpose of analysis is to sharpen the educator's judgment, to supplement his wisdom, and in general to make him more informed as he makes important decisions. Ultimately, there is no substitute for an experienced, sensitive and insightful school executive. Education is too complex a process to be reduced to routine and quantitative analysis. The analysis should always be couched in language that is easily understood by the generalist--and the generalist can never surrender his decision-making responsibility to a computer or mathematical formula.

PPBS: The Good and the Bad

It Helps Schools To:
- Improve cost analysis and control.
- Evaluate programs in terms of objectives, costs, benefits.
- Identify and analyze alternative ways of achieving the same goal.
- Establish priorities.
- Allocate resources in light of total needs and resources.
- Appraise the performance of those responsible for reaching stated goals.
- Coordinate short-range and long-range planning.
- Inform the public of the purposes, costs and expected results of school programs.

But It Also:
- Takes time, money and skill to develop and operate.
- Results in more detailed accounting and budget documents, requiring summarization or interpretation.
- May result in placement of too much emphasis on the costs of programs rather than their benefits.
- May meet with resistance from staff members who resent systematization of the education process.

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National School Boards Assn.

- The emphasis on the measurement of results which is characteristic of PPBS may tempt school officials to abandon purposes which cannot easily be quantified. Sound educational practices take precedence over the requirements of a PPB system should the two ever conflict.

- PPBS is not a substitute for competence and common sense in administration. If these are lacking in a school district, PPBS will not by itself lead to the development of improved educational programs.

- The operation of the system must never become an end in itself. PPBS has a vocabulary of its own, and the inputs, interactions, outputs and feedbacks may hold a fascination for some that takes their attention away from the educational tasks at hand.

- There are few educators trained in systems and in the operation of PPB systems. Caution should be exercised by school districts implementing PPBS. Staff members have to be carefully trained and the merits of PPBS have to be demonstrated before anyone can say with certainty that school districts "ought" to adopt it.

The council built into its model for implementing PPBS several safeguards in view of the cautions it determined. They included:

- Adequate outside assistance will be provided to the pilot test district.
- First-year activities are going to be carefully planned in detail.
- The pilot district will take a long view (i.e., five years) when considering the implementation of a total PPB system.
- The number of activities affected in the first year will be limited.
- A significant effort will be made to communicate the purpose and progress of the project to all district staff members.
- A significant proportion of the resources of the project will be devoted to staff training.

A recent report from the Center for the Advanced Study of Educational Administration (CASEA) described most schools' efforts to develop PPBS as marginally successful at best. Although some systems have been inadequately conceptualized or operationally reduced to a set of sophisticated budgeting and accounting procedures, it said, a more basic reason for the limited success of the system was that instructional and training materials have not been carefully developed. "Consequently," the report added, "implementation of new planning systems often has been left to personnel who have lacked in varying degrees the necessary knowledge and competencies. A meaningful, well developed planning system is terribly complex; it neither can be viewed simplistically nor implemented carelessly."

CASEA has developed a project it hopes will eliminate some of the disadvantages of PPBS. Called Data-Based Educational Planning Systems (DEPS), the approach "is designed to focus upon identifiable activities within an organization and to provide a planning strategy for using data about each activity to make future decisions regarding its operation.

"DEPS is the only form of educational PPBS with which we are familiar that clearly separates community and professional prerogatives with regard

to a public school district," DEPS designers claim. Other PPBS models suggest that districtwide goals be defined and specific objectives prescribed for teachers. This one-way flow from broad goals to classroom objectives creates two major problems: first it leads to a set of "programs" which are difficult, if not impossible, to match in an on-going school district; and second, it leads to the imposition of classroom objectives--and then standardized evaluative instruments--upon professional personnel. By contrast, DEPS attempts to keep separate the legitimate but quite different responsibilities of a public and a professional educator. It recognizes schools as on-going organizations and then capitalizes on the ability of their professional personnel to define objectives in performance terms and to plan appropriate processes for achieving those objectives. At the same time, it recognizes the legitimacy and advisibility of having a school district's public periodically involved in defining and refining the district's broad educational philosophies and goals.

"DEPS pushes the planning process down to the level at which teachers and students interact," its designers say. Explicit planning occurs within classrooms and courses rather than in terms of total schools and broad district programs, and responsibility for the content of that planning lies almost completely with the professional educator.

"Finally," they conclude, "the DEPS instructional materials represent a comprehensive and detailed approach to training personnel. They include far more than a book, a list of steps or a report of activities. In addition to these usual products, the DEPS instructional materials include extensive worksheets, a simulation, several tape-slide presentations and a consultant's manual which describes in detail the potential uses of the materials--both to instruct others about DEPS as well as to actually implement a data-based planning system in a school or school district."

Assessment of PPBS

Harry J. Hartley, associate dean of education at New York U., assessed PPBS for 1971-72 and offered these observations and impressions:

Actual achievements. "We now know for certain that program budgeting is easily possible for local schools; but as for the complete PPBS, the jury is still out. It is much easier to develop a program budget than to develop goals and evaluation measures in each program area."

Inadequate time. "The number one problem in implementing PPBS is the lack of time. Administrators are generally unable to devote sufficient time to this activity. As a result, most schools are under-administered. PPBS is usually done in spurts of activity, and the result is uneven progress."

Dialogue between users. "A serious current dilemma is the lack of information exchange among users. Each district begins at base zero and tries to rediscover the wheel (PPBS)."

Turnover rate. "PPBS is very highly personalized. That is, its success depends on one particular person in the organization. If that person should

leave the district (PPBS specialists are in demand and are mobile), the whole project is left in disarray. We need continuity of documentation."

Best approach. "There is no single best way to 'do' PPBS. It is a process that has to be adapted uniquely to the individual aspects of each local school. Each school should develop its own implementation strategy."

Excessive paperwork. "Most districts already have excessive forms, paperwork and dysfunctional bureaucratic procedures. PPBS may add to this problem. My question is this: 'Will the initial commitment of time and effort result in a long-range simplification of duties for the persons involved?' Or stated more simply: 'Does PPBS make life simpler once it is implemented?' The answer should be 'yes.'"

Curriculum deficiences. "PPBS has not been portrayed adequately in terms of its 'instructional thrust.' The present emphasis is clearly on fiscal matters. There has been too little involvement by curriculum-evaluation specialists. This has been a very difficult problem to solve."

Evaluation. "Some evaluation may not be better than no evaluation. We use simplistic measures (e.g., reading scores) that are even more simply interpreted, and the result is that some lay people conclude that the schools have failed. We should avoid premature evaluation."

Humanizing education. "PPBS is running into the emergent trend of humanism (Consciousness III, counter-culture types). I believe PPBS can be used to humanize our schools because it directs attention to program priorities based on human values."

Abolishing programs. "Largely because of the fiscal crisis, we are in an era of retrenchment psychology. Our dilemma is not which programs can we add to our curriculum, rather, which programs must be dropped because of the financial squeeze. PPBS can help make these unpleasant decisions."

Administrative responsibility. "Based on my visits to schools in 32 states, I am convinced that one person in the district should have primary responsibility for managing PPBS. The use of a task force is desirable, but one person should be designated to coordinate the project as a whole. Shared responsibilities often mean that nobody is actually working on PPBS."

Middle management. "There is a great need for leadership training sessions for 'middle management.' When PPBS enters some districts, the distinctive roles of principal and supervisor appear to be unclear. The result is ambiguity and apprehension over who has responsibility for certain functions."

Budget display. "In presenting a program budget summary, one shows increases in costs via categories such as: (1) increases due to costs of continuing commitments; (2) changes due to student distribution; (3) changes due to negotiations; (4) changes due to program improvements; and (5) increases due to other aspects of inflation."

Pragmatic use. "The opportunistic approach (a time-phased implementation strategy) appears to be the best way for schools to proceed with PPBS.

Survey Results: 387 Districts Developing PPBS

Despite all the talk about PPBS, only a small percentage of the school districts in the United States and Canada are actually developing it. This is the result of an "international inventory" on the status of PPBS conducted by the Assn. of School Business Officials (ASBO). The survey queried 2,832 member districts and received 1,327 replies. Of these, only 387 districts said they either had implemented or were actively working toward the installation of PPBS, or, as ASBO tags it, Educational Resources Management Systems (ERMS). Yet the 387 represents a 1,000% jump over the 35 school systems with ERMS in 1967, says LaMar L. Hill, chairman of ASBO's Committee on Educational Resources Management. The statistics also showed that use of ERMS varies widely in various parts of the country. In California, 43 of 64 school districts responding use PPBS; Florida, 7 of 14; New York, 6 of 65; and South Dakota, 1 of 15.

Prepare three things: (1) program structure, (2) program budget, (3) program analyses."

Simplicity. "My best advice to you concerning PPBS is: 'Keep it simple.' Make certain to avoid the jargon of systems analysis, i.e.--children are 'outputs,' curriculum is 'throughput.'"

The big question--will PPBS work?--still lingers with educators. Any answer is premature at this point. Theoretically, PPBS makes a great deal of sense. Practically, PPBS depends upon many factors and variables in order to be a realistic and viable approach to accountability. With patience, time, unselfish motivation and a sincere desire to serve the youngsters and community, educators are expected to find PPBS a workable and most useful concept.

APPENDIX

State Legislation on PPBS

Not all states at the present time have legislation mandating PPBS or a form of program budgeting in their public schools. Many of those which do not, however, have such legislation pending in their state legislatures. In many other states, offices of state superintendents are studying the feasibility of PPBS.

Indiana's Law

Indiana's Public Law 309 on PPBS illustrates the kind of mandate a state legislature is willing to adopt:

PUBLIC LAW NO. 309
(Approved April 8, 1971.)

Ch. 1.5. State Board of Education: Commission on General Education

Sec. 1. The Commission on General Education shall immediately make an analysis of a single unified system of budgetary preparation and accounting based upon the concept of the planning and program budget system.

Sec. 2. The Commission shall analyze such budgetary system to determine whether it offers accurate and complete program and item data which allows ready comparison of educational program cost incurred in the several public school systems of the state.

Sec. 3. The Commission may contract with any competent consultation firm for any necessary survey, analysis or design expertise not found within those agencies of the Department of Public Instruction.

Sec. 4. The Commission shall complete the analysis of such a system of programmed budgeting on or before July 1, 1976. After such date, the Commission shall establish a program of instruction for all local system administrators and other personnel who should be involved including school budgetary officers so that the analysis and instruction program will be completed on or before July 1, 1977.

Sec. 5. All public school governing bodies in the state without exception shall adopt and fully and accurately implement the budgetary system established pursuant to this chapter whenever the general commission so determines after receipt of a recommendation of readiness from the consulting firm, but no later than July 1, 1977, in any event. Failure of any such system to adopt and fully and accurately implement such budgetary system shall constitute a violation of state law and the Commission shall immediately move to take such action as it deems appropriate.

California's Law

California's state legislature has established a commission to help school districts to develop PPBS. Chapter 6 of Division 2 of the State Education Code, as approved Oct. 19, 1971, reads as follows:

Assembly Bill No. 2800

584. There is in the Department of Education the Educational Management and Evaluation Commission consisting of a Member of the Assembly appointed by the Speaker of the Assembly, a Member of the Senate appointed by the Senate Committee on Rules, one public member appointed by the Speaker of the Assembly, one public member appointed by the Senate Committee on Rules, one public member appointed by the Governor, and nine public members appointed by the State Board of Education upon the recommendation of the Superintendent of Public Instruction or the members of the State Board of Education.

With respect to the nine public members appointed by the State Board of Education, three members shall represent the field of economics, three members shall represent the learning sciences, and three members shall represent the managerial sciences. Each public member shall serve at the pleasure of the appointing power.

584.1. The Members of the Legislature appointed to the commission pursuant to Section 584 shall have the powers and duties of a joint legislative committee on the subject of educational management and evaluation and shall meet with, and participate in, the work of the commission to the extent that such participation is not incompatible with their positions as Members of the Legislature.

The Members of the Legislature appointed to the commission shall serve at the pleasure of the appointing power.

584.2. The members of the commission shall serve without compensation, except that they shall receive their actual and necessary expenses incurred in the performance of their duties and responsibilities, including travel expenses.

584.3. The Superintendent of Public Instruction or his representative shall serve as executive secretary to the commission.

584.4. The commission shall select one of its members to be chairman of the commission.

584.5. The commission shall assist and advise the State Board of Education in the evaluation of the program achievement of educational programs, in the determination of the relative cost effectiveness of educational programs, and shall make recommendations concerning the expanded use, modification, or replacement of educational programs so as to produce a higher degree of program achievement and cost effectiveness. The commission shall also serve as an advisory body to the State Board of Education on program budgeting and accounting systems for school districts.

Introducing PPBES to Dade County

The public school system of Dade County, Fla., one of the first districts to implement PPBES, explains how it got its program underway: The PPBES project staff of the school system developed the design and the procedures for a comprehensive program planning, budgeting and evaluating system. The first phase of the program was implemented July 1, 1971. PPBES is now established as an integral part of the school system and is no longer in the project or experimental stage. The task for future years, as seen by the project staff, is one of additional refinement and implementation.

During 1970-71, the Dade County Public School System provided educational programs for approximately 240,000 children (sixth largest in the nation) with a total budget of $250 million. The school system is decentralized administratively into six geographic areas, each administered by a district superintendent responsible to the county superintendent who in turn is responsible to the school board.

Events Leading to PPBES

1964-65: As part of the preparation of the 1964-65 budget, a system of cost center budgeting was initiated early in 1964. The concept was further developed and continued during 1964-65, with steps taken to begin accounting for expenditures on a cost center basis (instructional materials only).

1965-66: The school system in the fall secured a series of grants under PL 89-10 and established financial processing techniques which in essence constituted a program budgeting/accounting system for federally contracted programs. The superintendent of schools and various administrators discussed the need for more effective management including the possible utility of program budgeting. Steps were taken to prepare a formal proposal for program budgeting to submit for federal funding.

1966-67: A management consulting firm was employed in September to design an improved financial reporting system. In October, the proposal for program budgeting was submitted to the U.S. Office of Education, but it was not funded. Certain school system administrators in the fall of 1966 contacted agencies and individuals who were active or interested in program budgeting. One was the Dept. of Management in the U. of Miami's School of Business Administration.

The Government Research Council of the Dade County Chamber of Commerce sponsored a conference for the school board and school system administrators on tools for effective management. Numerous references to program budgeting were made at this conference.

1967-68: The Dade County Board of Public Instruction and the Research Corporation of the Assn. of School Business Officials, as cooperating agencies, submitted a proposal to USOE for a research grant to design a Program Planning, Budgeting, Evaluating System. This proposal was funded.

1968-69: The first staff member (project director) of the PPBES project was employed, and a resource committee was formed to work with the project direc-

tor in establishing general directions for PPBES development. The committee consisted of the superintendent of schools; the assistant superintendent for administrative services; the associate superintendent for instruction; the assistant superintendent for finance; a district superintendent; the directors of special programs, data processing and program budgeting; the administrative assistant to the district superintendent (Vocational District); and the coordinator of inservice education. In February, the first program structure was developed.

1969-70: The PPBES project staff that eventually developed the system design and was responsible for the initial implementation was formed in July. Based on an analysis of the first program structure and reactions from administrators and teachers to that structure, the second program structure was developed in January. It served as the framework in producing the Tentative Program Budget for Fiscal Year 1969-70.

1970-71: Additional analyses resulted in a revised program structure during July. By August, the Dade County Public Schools published its first official program budget for fiscal year 1970-71.

Determining a Starting Point

Initial efforts of the project staff were finally based on the answers to three questions:

- What information was available about PPBES in general and specifically about the application of PPBES methodology to educational institutions?
- What types of PPBES activities and documents were potentially useful in the management of a large school district?
- What were the current scope and administrative location of planning, budgeting and evaluating activities?

Although literature about governmental attempts to install program budgeting was available, there was little information on the applicability of PPBES to management practices in school districts and very few school districts at the time were attempting or even considering PPBES as a management tool.

Activities in existing governmental applications of PPBES consisted of program planning, program budgeting, program evaluation and program analysis. Resulting documentation was found in program plans, program memoranda, program budgets and issue papers. This is, of course, an inadequate reference to those activities and to those documents. The point to be emphasized, and reemphasized, is that in PPBES those activities are integrated and those documents are interrelated; and that in PPBES, the program is the focal point for those activities and for those documents.

Early in 1969 a survey was conducted which identified all documents currently used for planning, budgeting and evaluating purposes in the school system.

The strategy was to compare potential PPBES activities and documents with existing planning, budgeting and evaluating activities and documents in order to identify areas of need which could be served by PPBES activities and documents. This strategy entailed (1) the identification of existing activities/documents, (2) the design of desirable activities/documents, and (3) working to move from the existing activities/documents to desirable ones.

Strategies for Development

Certain overriding principles dictated adoption (planned or accidental) of those strategies employed in developmental efforts. These were (1) PPBES was to be an evolving one, initially from existing practices and subsequently in stages of refinement, (2) tasks selected in the developmental sequence were to be carefully chosen so that they could in fact be achieved, so that implications for immediate change in the organization be minimized, and so that the imposition on persons and/or the organization be minimal, and (3) requests for persons in the organization to exhibit certain behaviors (e.g., writing objectives) were not to be made until a reasonable probability existed that those persons possessed those behaviors. This latter principle required the PPBES staff to provide numerous orientation/inservice training sessions. Accordingly, the project staff undertook certain kinds of pilot activities and sought certain kinds of pilot products. These were:

- Pilot activities and documents which did not differ substantially from existing activities and documents.
- Pilot products which capitalized on the advantages of current activities and documents but offered those benefits of PPBES methodology which could be accrued in the start-up phase.
- Pilot products which offered minimal risk of failure and maximal benefits (e.g., applying evaluation first to administrative and industrial type operations instead of first to instruction).
- Pilot products which had usefulness in themselves and contributed to an evolutionary implementation of the system.

Guidelines followed in the involvement of other personnel included:

- To maximally involve other line and staff personnel in the system development with the PPBES staff providing the structures, guidelines and format for such development.
- To involve other line and staff personnel only after adequate training/orientation had been provided.

The Key Role of the Program Structure

Although the resource committee was unsuccessful in its attempt to produce a program structure, the direction was set for initial PPBES development, i.e., the first task was to establish a program structure which would form the framework for future development. The project staff proceeded from this point in attempting to define a logical system for classifying the diverse activities of the school district. The inductive approach was adopted in attempting to classify existing activities in the establishment of the pro-

gram structure. The rationale for this approach was based on the following assumptions:

- The activities of the past and present do have relevance to the mission of an educational organization.
- The inductive approach affords a reasonable probability for successful implementation of PPBES.
- The implementation of PPBES (possibly most innovations) should be evolutionary in nature.
- It is desirable for the school district to collect information about and to assess the existing programs.

At the same time, the danger of being committed to the status quo is present with the inductive approach. The PPBES design must include the capability to accommodate the commitment to change when the need for that change is well documented.

The rationale for the first program structure was developed by the PPBES project staff. Division of Instruction personnel used that structure to produce a manual of "Dade County Public Schools Programs" and initiated various planning activities based on that structure. The utility of program structure-oriented "thinking" was substantiated. Its weaknesses rested primarily with the communication of the structure. Although the structure could accommodate the levels of activities, i.e., elementary, junior high, senior high, that fact was not readily communicated. Although the structure could lead to greater detail in the support programs, such detail was not provided. Additionally, a concept based on and presented with "formal logic" was somewhat alien to school system personnel.

Accordingly, the project staff proceeded to revise the program structure. The logic of the structure and the concomitant definitions were refined with the structure being transformed into a "benefit oriented" model of the school system which included two program areas--instruction and administration/planning. Formal presentations of this structure were made to groups of personnel which included representatives of each administrative office, instructional personnel such as teachers and subject area consultants, principals and executive level administrators.

Certain revisions were made in the structure based on the interactions at those presentations. The structure then provided the framework for producing a program budget for fiscal year 1969-70 using manual crosswalk procedures. As a result of the formal presentations of the structure and using the structure in pilot activities, certain conclusions indicated the need for further "revisions" in the structure. These included: (1) the structure presented an unnatural dichotomy between instructional and support activities, (2) the structure was too much a reflection of responsibility centers and did not adequately portray programs as they crossed organizational lines and (3) the structure did not possess the capacity for analyzing the school system's activities from a perspective of major educational objectives or priority thrusts.

The program structure that finally evolved and was used in the first phase implementation of the system has two dimensions--a program dimension

and a responsiblity center dimension. This structure now provides the framework for planning and budget preparation, the principal thrusts of which are program planning and program budgeting at responsibility centers. Present activities of the organization are readily communicated, using this structure, in terms most familiar to organization personnel; classification of activities conducted in various agencies of the organization but having common objectives can be accomodated using the structure; the facility for change exists via the special program category.

The key role of the program structure provided the starting point in the PPBES development and formed the framework for subsequent implementation. And in fulfilling the essential commitment to change the program structure must be a dynamic one and facilitate change.

Operational Activities and Products, 1970-71

The PPBES project staff and the existing budget section were amalgamated into a Dept. of Planning and Budgeting located within the Division of Finance. This department is headed by the director of planning and budgeting, a position which replaces the former position of budget director. One section in this department will assume the planning, programming and evaluation functions that were designed, piloted and recommended for implementation by the PPBES staff.

The establishment of the Planning and Budgeting Calendar, which delineates the timetable for the preparation of the 1971-72 budget and planning documents and which replaced the budget calendar in the existing system, was a significant step toward full implementation of PPBES. The Planning and Budgeting Manual includes an extensive section on planning guidelines and forms to provide assistance to operational personnel in planning and budgeting for fiscal year 1971-72. The objectives achieved with the calendar and the manual were (1) the integration of the acts of planning and budgeting and (2) the implementation of program planning and budgeting at responsibility centers.

Major revisions reflect the emphasis upon program-oriented information in the new system; other desirable changes in the budgetary accounting system also are incorporated. Reports produced in the financial reporting system are geared to three levels of management--level one for the superintendent, level two for district/division offices, level three for responsibility centers. In subsequent years, an effort will be made to put into operation program accounting and program evaluation as well as to refine the program planning and budgeting procedures.

Staff Development Recommendations

An essential preliminary to implementing PPBS is the retraining of staff. The Assn. of School Business Officials (ASBO) makes the following recommendations for staff development in its Report of the Second National Conference on PPBES and Education:

New awareness of the skill and insight necessary for planning, programming, budgeting and evaluating comes into sharp focus as specific objectives are developed in relation to general goals. Curriculum development and budgeting are closely interrelated, as are the functions of planning and evaluation. The determined needs of inservice education and the utilization of a process which allows cooperative efforts toward meaningful staff development merge in the functional strengths of ERMS (PPBS).

New Functions and New Roles: Teachers, in planning sound learning environments for students, are increasingly assuming the roles of facilitators, stimulators and professional guides for learning. In these new roles teachers become more adept as planners, programmers and evaluators. To provide leadership and service to teachers, principals and other management personnel should develop expertise in areas not usually given a priority in the past.

Glenys Unruh, in describing the staff development program in the University City (Mo.) Schools, highlights the characteristics of a sound staff development program:

> It is our goal to provide a learning environment for the inservice education of teachers that is much like the environment we believe is desirable in working with students: utilization of group dynamics, a wide range of media, involvement in real problems, skillful use of supportive services and resources, and a research orientation. Inservice education activities are planned to meet current objectives, meet the needs of individual teachers and meet the concerns of groups of teachers. Feedback forms the basis of inservice planning: knowledge of the students, analysis by the teacher of his own feelings and skills, and procedures are devised to assist us in searching for better practices and content. We are beginning to build in a system in which the participants identify their needs, state specific objectives, outline alternate procedures and plan an evaluation which leads to revision of the process.

Overall coordination of ERMS (PPBS) will be least effective in a traditional line-and-staff organization in which those directly responsible to the superintendent perform functions individually without relating decisions to those of colleagues. Teamwork is essential.

Perhaps the most significant forward thrust a school district can provide its staff development program would be the priorities which the superintendent and his leadership staff establish for their own development. The American Assn. of School Administrators, through its National Academy for School Executives, is providing seminars which are most helpful in this regard. (And most recently, the National Assn. of Secondary School Principals, through its National Institutes for Secondary School Administrators.) The Assn. for

Supervision and Curriculum Development has two publications, Personalized Supervision and Toward Professional Maturity, both designed for those who support the teacher in providing for better learning.

There are several agencies available to local school districts offering assistance in developing the skills essential to the successful implementation of ERMS (PPBS). The agencies include both profit and nonprofit organizations. Some of these are funded by federal grants such as ESEA support to the regional laboratories. Others include the national curriculum projects and institutions of higher learning. Several commercial enterprises have gained facility which can also be of assistance. ERMS (PPBS) is a vehicle for people to develop skills and insights through participation as planners, programmers and evaluators.

Developing Leadership: If teachers are to develop their fullest potentialities, teacher training institutions must become partners with the school systems in staff development programs. It is encouraging to note that the National Science Foundation (NSF) provides funds for teacher education institutions and school systems to work together on inservice education. New insights result from the acquisition of new skills. In some instances, the recruitment of new personnel with expertise in particular areas is necessary. Consultants may temporarily serve specialized roles when a clear need exists such as the training of a staff with the skills essential for defining performance criteria consistent with general objectives.

Staff development for ERMS will be most effective if tailored to individual needs. The Cherry Creek School District in Colorado has found that in addition to orientation sessions, the assignment of new employes to teaching teams utilizes some of the leadership talent available within the school district. This is made possible by the differentiated staffing designs developed at each building. The Wisconsin Research and Development Center for Cognitive Learning has delineated three types of research and development activities which can be effectively implemented in multiunit schools. First, there is "staff" research to identify, implement and carefully evaluate promising materials and procedures. A second type is "development-based" research in which the school develops and continously refines instructional materials or procedures. A third type is "basic" research which has many variants including controlled experimental and short-term descriptive research.

In answering the question, "How can the entire teaching staff of a school district be given the opportunity to learn to use a new teaching technique?" personnel of the Spokane (Wash.) School District, in cooperation with the Northwest Regional Educational Laboratory, developed a training model for preparing the staff in the use of planned teaching techniques. The model takes advantage of:

1. District administrative personnel previously trained to use the "Higher Level Thinking Abilities" teaching strategy.
2. A district-owned television station.

Many school districts and teacher education institutions are developing plans for an innovative continuing teacher education program. Teachers at James Elementary School, Kansas City, Mo., were enrolled in a graduate pro-

gram at the U. of Missouri at Kansas City for one year. The purpose of the project was to develop a faculty capable of creating an innovative exemplary school. The study program included opportunities for the teachers to acquire knowledge in subject fields and for planning an individualized learning environment at James School.

Time, Materials and Facilities: If ERMS (PPBS) is to be implemented successfully, the school district must provide the conditions which encourage the acceptance of change into utilization of time, materials and facilities. Many good ideas have little chance of success simply because too little is done to provide conditions for success. Time for staff development can often be arranged through a realistic appraisal of activities.

Many educators are finding that teachers have more time for planning and program development by using paraprofessionals and by taking advantage of the new technology such as television, computer assisted instruction, learning laboratories and other audiovisual equipment. Consequently, as students mature, individualized and independent learning is enhanced.

Staff Utilization: School districts should seriously reexamine sabbatical leave, summer employment and released-time policies to provide more time for participation in ERMS (PPBS). The importance of providing sufficient time for teacher planning cannot be overstated. In initiating ERMS (PPBS), emphasis is given to the importance of the continuous involvement of teachers. Educators who are not directly involved in teaching can often rearrange time priorities for ERMS (PPBS), but individual teachers need help in arranging time if they are to be involved in planning. School districts could use these means for releasing the teacher from the direct teacher-student obligation:

1. As a part of the regular school day: Team teaching, differentiated staff assignments and independent learning programs can provide for teacher planning time.

2. A special segment of time provided on a weekly basis: This is possible by shortening the pupil's day on a scheduled basis.

3. Released time: School systems often provide substitutes to permit a small group of teachers to work intensively on a project.

4. Summer employment: This is often accomplished through individual summer contracts. In many districts teachers are employed year round.

There are schools which are employing one or more of the above approaches in finding time for teachers to work on staff development projects. At the UCLA Elementary School, students attend school for six weeks and then are dismissed for one week while teachers plan. In Newton, Mass., students are dismissed at noon on Tuesdays and Thursdays. In the Normandy School in Montgomery County, Md., students are dismissed at noon one day each week.

The Princeton, N.J., schools have adopted a Wednesday program. Constance Vieland, coordinator of staff development programs for Princeton, states in a letter:

The Wednesday Program is a released time program initially funded by ESEA Title III, which is conducted every Wednesday from 1:30 to 3:30. Students are dismissed at 1:00. The Wednesday Program is planned and implemented by an elected group of staff members. In addition to instructional and administrative staff, program participants include non-instructional staff and interested members of the community. We have occasional "Home Group" meetings where participant attendance is required. Home Groups consist of some 15 participants representing a cross section of the school. A particular group might include teachers from throughout the district, a secretary or custodian, a principal, a community person, etc. Issues related to the purposes and the evaluation of the program are discussed in these groups.

Providing the Costs: Up to 10% of the current expenditures of many private enterprises is attributed to research and development. The American people can expect school districts to invest more in research and development than has been the case in the past. It has been indicated that the average school district's research and development expenditure is less than 1%.

The Dallas, Tex., school system has initiated a "Penny for Innovation" budget. Dallas Supt. Nolan Estes says: "This means that one penny of the tax rate is designated for locally initiated innovative projects."

Evaluating Results: A test of the effectiveness of the staff development program is, of course, the degree to which utilization of ERMS (PPBS) facilitates the strengthening of the educational program. There must be a carefully planned evaluation not only of the staff development program itself but also of the impact of the program on the quality of learning. As a systems approach, ERMS (PPBS) provides for program choices to be made intelligently in relation to a promise of enabling students to attain previously determined performance objectives. Evaluation is an integral part of the process. Leadership from outside the system can be utilized for consultation in evaluation of staff development programs.

Sample Page
Traditional Line Item Budget

1971 Budget

Category	Description	1970 Budget	1971 Budget
1100	School Committee	2,063	2,190
1200	Superintendent's Office	78,540	83,322
	TOTAL ADMINISTRATION	80,603	85,512
2100	Supervision	15,930	9,420
2200	Principals	155,197	177,350
2300	Teachers	1,579,922	1,756,058
2400	Texts	37,025	38,126
2500	Library	19,745	20,693
2600	Audio-Visual	19,664	23,331
2700	Guidance	62,350	83,526
2800	Pupil Personnel	15,235	17,130
	TOTAL INSTRUCTION	1,905,068	2,125,634
3100	Attendance	200	200
3200	Health Services	35,023	41,482
3300	Transportation	166,753	165,703
3400	Food Services	10,079	11,116
3500	Student Activities	2,246	2,512
	TOTAL OTHER SCHOOL SERVICES	214,301	221,013
4100	Operation	171,685	194,618
4200	Maintenance	61,518	57,959
	TOTAL OPERATION AND MAINTENANCE	233,203	252,577
7200	Improvement	0	0
7300	Acquisition	10,355	14,469
7400	Replacement	3,870	2,552
	TOTAL IMPROVEMENT, ACQUISITION, REPLACEMENT	14,225	17,021
9100	Tuition	2,600	8,243
	TOTAL PROGRAM WITH OTHERS	2,600	8,243
	TOTALS	2,450,000	2,710,000

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Sample Page
Program Budget Under PPBS

Summary of Expenditures (1971) by Program Level
With Allocation by Grade Spans

Code	Program Title	Elementary 1-5	Grade 6	Jr. High 7-8	District Wide	Total
INSTRUCTIONAL PROGRAMS						
	Basic Education					
60	English, Lang. Arts 1-8	182,310	32,328	92,073		306,711
61	Reading 1-8	249,609	37,725	5,285		292,619
62	Science 1-8	54,398	33,584	80,985		168,967
63	Health 1-8	31,303	4,995	3,203		39,501
64	Mathematics 1-8	130,708	21,684	76,283		228,675
65	Social Studies 1-8	69,412	25,310	73,081		169,803
59	Physical Education 1-8	77,395	13,808	30,808		122,011
66	Typing 7-8			23,790		23,790
67	Foreign Language 7-8			21,643		21,643
68	Home Economics 7-8			26,914		26,914
69	Industrial Arts			37,277		37,277
57	Art 1-8	79,410	13,790	26,020		119,220
58	Music 1-8	84,980	13,046	26,117		124,143
00	Non-Program				61,387	61,387
	Total Basic Education	959,525	200,270	523,483	61,387	1,744,665
76	Special Education				54,490	54,490
77	Tuition Pupils				8,043	8,043
74	Adult Education				200	200
	TOTAL INSTRUCTIONAL PROGRAMS	959,525	200,270	523,483	130,120	1,813,398
INSTRUCTIONAL SUPPORT PROGRAMS						
	Learning Resources					
71	Libraries	4,140	881	19,668		24,689
	Pupil Personnel Services					
72	Guidance 1-8	21,998	19,084	35,444		83,526
73	Health Services				41,482	41,482
	Total Pupil Personnel Services	21,998	19,084	35,444	41,482	125,008

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School Districts Implementing PPBS

The following school systems are among those involved at varying levels of implementing one form or another of PPBS and are not described in the text of this Special Report:

Anchorage Borough School Dist.
670 Fireweed Lane
Anchorage, Alaska 99503

Mesa Public Schools
549 N. Stapley Drive
Mesa, Ariz. 85203

Greenwich Public Schools
Hanameyer Bldg., PO Box 292
Greenwich, Conn. 06830

Westport Public Schools
Town School Office
Westport, Conn. 06880

Arlington Heights Dist. 25
301 West South St.
Arlington Heights, Ill. 60005

Lincoln School Dist. No. 27
208 Broadway St.
Lincoln, Ill. 62656

Springfield School Dist. No. 186
1900 West Monroe St.
Springfield, Ill. 62704

Mason City Community Schools
120 East State St.
Mason City, Iowa 50401

Shawnee Mission USD No. 512
7235 Antioch Rd.
Shawnee Mission, Kan. 66204

Wichita USD No. 259
428 S. Broadway
Wichita, Kan. 67202

Portland Public Schools
107 Elm St.
Portland, Maine 04111

Anne Arundel County Board of Education
PO Box 951, Green St.
Annapolis, Md. 21404

Montgomery County Board of Education
850 North Washington St.
Rockville, Md. 20850

Independent School Dist. No. 271
10025 Penn Ave. South
Bloomington, Minn. 55431

Independent School Dist. No. 535
Coffman Bldg.
Rochester, Minn. 55901

Clark County School Dist.
2832 East Flamingo Rd.
Las Vegas, Nev. 89109

Guilderland Central School Dist.
State Farm Rd.
Guilderland, N.Y. 12084

Fargo Public School Dist. No. 1
Fargo, N.D. 58102

South Lane School Dist. No. 45-J
103 South Fifth St.
Cottage Grove, Ore. 97424

Portland School Dist. No. 1-J
631 North East Clackamas St.
Portland, Ore. 97208

Tredyffrin-Eastown School Dist.
95 Howellville Rd.
Berwyn, Pa. 19312

Bucks County Public Schools
Doylestown, Pa. 18901

Other Reports by the Editors of Education U.S.A.

Education of the Gifted and Talented. A report to the Congress by the U.S. Commissioner of Education. This report, the most comprehensive, current study of the gifted, reveals a shocking neglect of 1.5 to 2.5 million gifted and talented youngsters. It relates plans to make their education a major national priority. #411-12806. 1972. 72 pp. $4.

Paraprofessionals in Schools: How New Careerists Bolster Education. Tells how paraprofessionals are helping to increase student achievement, to free teachers to teach, and to "unfreeze" traditional school organization; what they do on the job; how to recruit, train, and supervise them; how to evaluate their performance. Describes successful aide programs. #411-12804. 1972. 64 pp. $4.

Year-Round School: Districts Develop Successful Programs. Explores the pros and cons of year-round schools. Comprehensive case studies and reviews of seven different types of programs now in operation, including advantages and disadvantages of each and comparative cost figures. Detailed rundown of how state legislatures and local school districts are approaching year-round schools. #411-12802. 1971. 64 pp. $4.

Drug Crisis: Schools Fight Back with Innovative Programs. Reports on drug abuse education programs around the country: facts and figures; what works and what doesn't; involving teachers and parents. Explains new federal drug abuse acts and includes a section on hyperactivity and amphetamines and directories of drugs and drug terms. #411-12798. 1971. 64 pp. $4.

Individualization in Schools: The Challenge and the Options. An examination of individualization programs, including their impact, goals, costs and results; whether students learn more; what the critics say. Detailed descriptions of eight major systems, including IPI, PLAN, IGE, IMS and PLATO. #411-12792. 1971. 64 pp. $4.

Shared Services and Cooperatives: Schools Combine Resources To Improve Education. Tells how shared services can help students, teachers and districts. Gives necessary steps in setting up a cooperative and solutions to the problem of financing shared services. #411-12798. 1971. 70 pp. $4.

Vandalism and Violence: Innovative Strategies Reduce Cost to Schools. What schools are doing to protect students and employes from physical attack and to secure school property from vandalism, theft and arson. Includes information on security devices and personnel: disciplinary measures; how to handle bomb threats. #411-12796. 1971. 56 pp. $4.

Vocational Education: Innovations Revolutionize Career Training. A look at the boldest and most successful career training programs in elementary and secondary schools. Explains the states' approach to Voc Ed, the "cluster approach," innovative vocational guidance programs and provisions of the new federal legislation. #411-12780. 1971. 64 pp. $4.

Environment and the Schools: Pioneer Programs Set the Pace for States and Districts. What's happening in school districts, state legislatures, higher education and nationwide programs concerning environmental education. Includes guidelines, sample programs, reading and film lists. #411-12782. 1971. 56 pp. $4.

Preschool Breakthrough: What Works in Early Childhood Education. Comprehensive report on what's happening in early childhood education, including descriptions of federal programs, working projects, research and trends. Specific how-to advice for those seeking to set up programs for preschoolers. #411-12774. 1970. 48 pp. $4.

Reading Crisis: The Problem and Suggested Solutions. A roundup of the most significant recent discoveries on reading problems and a guide to supervisory and teaching techniques that work. Gives step-by-step suggestions to help teachers diagnose reading difficulties, measure reading levels, pinpoint weaknesses. #411-12766. 1970. 56 pp. $4.

Differentiated Staffing: A Review of Current Policies and Programs. Tells how some schools are using this new way of deploying and paying teachers and whether it works. #411-12754. 1970. 48 pp. $4.

Address communications and make checks payable to the National School Public Relations Association, 1201 16th Street NW, Washington, D.C. 20036.